

AUTHOR INDEX

- Åberg, T., 435
 Abplanalp, W., 411
 Abrahamsson, K., 1501
 Ades, P.A., 174, 179
 Adlercreutz, H., 1533
 Adrogué, H.J., 579
 Agil, A., 876
 Ahrén, B., 502
 Akinsanya, K., 669
 Akiyoshi, M., 184
 Alberti, K.G.M.M., 627
 Alemzadeh, R., 334
 Alford, F., 598
 Aloia, J.F., 43
 AlSalmi, I., 1230
 Amit, T., 424
 Amselem, S., 1493
 Anconetani, B., 351
 Andersen, L.F., 833
 Andrews, K.M., 404
 Andrikopoulos, S., 622
 Anfossi, G., 285
 Angeli, A., 109
 Anthony, M.S., 1254
 Aoki, H., 1330
 Aoki, T.T., 738
 Aragno, I., 1319
 Arnadottir, M., 686
 Asfour, M.G., 1230
 Atillasoy, E., 1179
 Augustine, G., 1021
 Auinger, M., 137
 Avagnina, P., 109
 Aversa, M., 1296
 Aviram, M., 1069
 Axelrod, L., 691
 Ayres, S., 411

 Babich, J.W., 1161
 Badaracco, B., 72
 Bailey, E.M., 1161
 Bak, J.F., 211
 Baldi, S., 1402
 Ballor, D.L., 174, 179
 Balon, E., 838
 Baltaro, R.J., 248
 Bao, W., 235
 Baracos, V.E., 848
 Barber, A.R., 738
 Bard, J.M., 1415
 Barsacchi, R., 998
 Bartoli, E., 498
 Basabe, J.C., 940
 Battisti, P., 1342
 Baumann, G., 1521
 Båvenholm, P., 1375
 Beck-Nielsen, H., 82, 598
 Behme, M.T., 120
 Bengtsson, B.-Å., 362, 370
 Berenson, G.S., 235
 Berger, D.C., 126
 Berglund, L., 435

 Bergström, E., 908
 Bernardini, B., 998
 Bernasconi, D., 72
 Berry, M.N., 101
 Berti-Mattera, L., 320
 Besmond, C., 1493
 Beylot, M., 817, 897
 Bhanot, S., 1053
 Bier, D.M., 254
 Biran, M., 1059
 Birkenhäger, J.C., 680
 Biscotti, M., 351
 Bistrián, B.R., 1273
 Bjarnason, R., 362
 Björntorp, P., 370
 Blaak, E.E., 1235
 Blivet-Van Eggelpoel, M.-J., 1493
 Boden, G., 1130
 Boechar, M.L., 76
 Boeck, M.A., 1011
 Boffano, G.M., 342
 Boisseau, M.R., 57
 Bonora, E., 1029, 1557
 Borelli, M.I., 565
 Borthwick, A.C., 947
 Bortolotti, N., 498
 Bosch, A.N., 415
 Bouchard, C., 378, 882, 1042
 Bouche, C., 92
 Bourdel-Marchasson, I., 1059
 Boyle, P.J., 1214
 Brancati, F.L., 699
 Branzi, P., 1557
 Braun, B., 747
 Bremner, F.W., 1021
 Brewer, H.B., Jr, 1447
 Bricker, L., 550
 Briffeuil, P., 383
 Brosius, F.C., III, 1466
 Brouns, F., 915
 Brousseau, M.E., 1447
 Brown, D.R., 1447
 Brubaker, P.L., 347
 Bruce, R., 328
 Burke, P.A., 1273
 Burzacca, S., 285
 Buzzigoli, G., 1402
 Byrne, C.D., 1551

 Cabana, V.G., 1034
 Caddy, S., 947
 Calles-Escandon, J., 174, 179
 Camanni, F., 342
 Cameron, N.E., 1147
 Canioni, P., 1059
 Capeau, J., 1493
 Carcello, A., 351
 Cardoso de Sousa, J.C., 293
 Carlström, K., 435
 Caron, M., 1493
 Carpenter, M.W., 753
 Carr, S., 753

 Carter, E.A., 1161
 Carver, J., 902
 Casamitjana, R., 873
 Casatello, R., 1029
 Casimirri, F., 351
 Cassagne, C., 57
 Castelo-Branco, C., 24, 515
 Catalano, C., 998
 Catellier, C., 1383
 Catlin, E.A., 190
 Cavalot, F., 285
 Cavarape, A., 498
 Cefalu, W.T., 1254
 Ceriello, A., 498
 Chaillous, L., 306
 Chaitachawong, C., 804
 Chalew, S.A., 424
 Chan, P., 966
 Chandor, S.B., 248
 Chang, C.-C., 718
 Charbonnel, B., 306
 Chattat, R., 351
 Chatzipanteli, K., 691
 Chen, X., 1130
 Chen, Y.-D.L., 1062
 Cherian, P.V., 1466
 Cherrington, A.D., 481, 571
 Chertow, B.S., 248, 300
 Chicco, A., 1527
 Chiou, S., 315
 Cho, J.H., 594
 Chow, J.C., 1273
 Chowdhury, B., 634
 Christiansen, J.S., 1016
 Ciuchi, E., 611
 Clarkson, T.B., 463, 1254
 Clodi, M., 486
 Cobb, M.M., 673
 Cobelli, C., 254
 Coggan, A.R., 1153
 Cohen, D.J., 1125
 Colburn, C.A., 481
 Colca, J.R., 519
 Cole, T.G., 1296
 Collins, L.C., 923
 Colvin, P.L., Jr, 889
 Comstock, J.P., 579
 Conget, I., 873
 Conner, C.E., 229
 Cooper, A.L., 645
 Cordle, M.B., 300
 Corkey, B.E., 519
 Correia, J., 1161
 Corssmit, E.P.M., 1458
 Costello, L.C., 442
 Cotter, M.A., 1147
 Couillard, C., 882
 Cowett, R.M., 753
 Cox, B.D., 1551
 Cox, H.S., 1487
 Coyle, E.F., 357
 Crea, T., 430

AUTHOR INDEX

- Åberg, T., 435
 Abplanalp, W., 411
 Abrahamsson, K., 1501
 Ades, P.A., 174, 179
 Adlercreutz, H., 1533
 Adrogué, H.J., 579
 Agil, A., 876
 Ahrén, B., 502
 Akinsanya, K., 669
 Akiyoshi, M., 184
 Alberti, K.G.M.M., 627
 Alemzadeh, R., 334
 Alford, F., 598
 Aloia, J.F., 43
 AlSalmi, I., 1230
 Amit, T., 424
 Amselem, S., 1493
 Anconetani, B., 351
 Andersen, L.F., 833
 Andrews, K.M., 404
 Andrikopoulos, S., 622
 Anfossi, G., 285
 Angeli, A., 109
 Anthony, M.S., 1254
 Aoki, H., 1330
 Aoki, T.T., 738
 Aragno, I., 1319
 Arnadottir, M., 686
 Asfour, M.G., 1230
 Atillasoy, E., 1179
 Augustine, G., 1021
 Auinger, M., 137
 Avagnina, P., 109
 Aversa, M., 1296
 Aviram, M., 1069
 Axelrod, L., 691
 Ayres, S., 411

 Babich, J.W., 1161
 Badaracco, B., 72
 Bailey, E.M., 1161
 Bak, J.F., 211
 Baldi, S., 1402
 Ballor, D.L., 174, 179
 Balon, E., 838
 Baltaro, R.J., 248
 Bao, W., 235
 Baracos, V.E., 848
 Barber, A.R., 738
 Bard, J.M., 1415
 Barsacchi, R., 998
 Bartoli, E., 498
 Basabe, J.C., 940
 Battisti, P., 1342
 Baumann, G., 1521
 Båvenholm, P., 1375
 Beck-Nielsen, H., 82, 598
 Behme, M.T., 120
 Bengtsson, B.-Å., 362, 370
 Berenson, G.S., 235
 Berger, D.C., 126
 Berglund, L., 435

 Bergström, E., 908
 Bernardini, B., 998
 Bernasconi, D., 72
 Berry, M.N., 101
 Berti-Mattera, L., 320
 Besmond, C., 1493
 Beylot, M., 817, 897
 Bhanot, S., 1053
 Bier, D.M., 254
 Biran, M., 1059
 Birkenhäger, J.C., 680
 Biscotti, M., 351
 Bistrián, B.R., 1273
 Bjarnason, R., 362
 Björntorp, P., 370
 Blaak, E.E., 1235
 Blivet-Van Eggelpoel, M.-J., 1493
 Boden, G., 1130
 Boechar, M.L., 76
 Boeck, M.A., 1011
 Boffano, G.M., 342
 Boisseau, M.R., 57
 Bonora, E., 1029, 1557
 Borelli, M.I., 565
 Borthwick, A.C., 947
 Bortolotti, N., 498
 Bosch, A.N., 415
 Bouchard, C., 378, 882, 1042
 Bouche, C., 92
 Bourdel-Marchasson, I., 1059
 Boyle, P.J., 1214
 Brancati, F.L., 699
 Branzi, P., 1557
 Braun, B., 747
 Bremner, F.W., 1021
 Brewer, H.B., Jr, 1447
 Bricker, L., 550
 Briffeuil, P., 383
 Brosius, F.C., III, 1466
 Brouns, F., 915
 Brousseau, M.E., 1447
 Brown, D.R., 1447
 Brubaker, P.L., 347
 Bruce, R., 328
 Burke, P.A., 1273
 Burzacca, S., 285
 Buzzigoli, G., 1402
 Byrne, C.D., 1551

 Cabana, V.G., 1034
 Caddy, S., 947
 Calles-Escandon, J., 174, 179
 Camanni, F., 342
 Cameron, N.E., 1147
 Canioni, P., 1059
 Capeau, J., 1493
 Carcello, A., 351
 Cardoso de Sousa, J.C., 293
 Carlström, K., 435
 Caron, M., 1493
 Carpenter, M.W., 753
 Carr, S., 753

 Carter, E.A., 1161
 Carver, J., 902
 Casamitjana, R., 873
 Casatello, R., 1029
 Casimirri, F., 351
 Cassagne, C., 57
 Castelo-Branco, C., 24, 515
 Catalano, C., 998
 Catellier, C., 1383
 Catlin, E.A., 190
 Cavalot, F., 285
 Cavarape, A., 498
 Cefalu, W.T., 1254
 Ceriello, A., 498
 Chaillous, L., 306
 Chaitachawong, C., 804
 Chalew, S.A., 424
 Chan, P., 966
 Chandor, S.B., 248
 Chang, C.-C., 718
 Charbonnel, B., 306
 Chattat, R., 351
 Chatzipanteli, K., 691
 Chen, X., 1130
 Chen, Y.-D.L., 1062
 Cherian, P.V., 1466
 Cherrington, A.D., 481, 571
 Chertow, B.S., 248, 300
 Chicco, A., 1527
 Chiou, S., 315
 Cho, J.H., 594
 Chow, J.C., 1273
 Chowdhury, B., 634
 Christiansen, J.S., 1016
 Ciuchi, E., 611
 Clarkson, T.B., 463, 1254
 Clodi, M., 486
 Cobb, M.M., 673
 Cobelli, C., 254
 Coggan, A.R., 1153
 Cohen, D.J., 1125
 Colburn, C.A., 481
 Colca, J.R., 519
 Cole, T.G., 1296
 Collins, L.C., 923
 Colvin, P.L., Jr, 889
 Comstock, J.P., 579
 Conget, I., 873
 Conner, C.E., 229
 Cooper, A.L., 645
 Cordle, M.B., 300
 Corkey, B.E., 519
 Correia, J., 1161
 Corssmit, E.P.M., 1458
 Costello, L.C., 442
 Cotter, M.A., 1147
 Couillard, C., 882
 Cowett, R.M., 753
 Cox, B.D., 1551
 Cox, H.S., 1487
 Coyle, E.F., 357
 Crea, T., 430

- Cryan, J., 174, 179
 Cuchel, M., 241
 Cugini, P., 1342
 Cullen, C., 940
 Cunningham, B.A., 519
 Cupples, A., 1267

 Dadgari, J.M., 248
 Daidoh, H., 206
 D'Alessandro, M., 1065
 Dallas, J.S., 1521
 Dallongeville, J., 686
 Dalton, J.T., 1108
 Danan, C., 1493
 Dapino, D., 1319
 Davidson, E.P., 229
 Davidson, M.B., 92, 1089
 Davis, C.E., 699
 Davis, P.G., 1427
 Dawson, S., 1021
 Day, N., 320
 Day, N.E., 1551
 De Antonio, I.E., 1395
 Deary, I.J., 974
 De Bruin, T.W.A., 827
 De Bruno, L.F., 940
 Decamps, A., 1059
 De Graff, C., 1004
 De la Bretonne, J.A., 1119
 Delalande, C., 1059
 Del Monte, P., 72
 De Long, P.E., 723
 Del Prato, S., 1196
 Delzenne, N., 1547
 De Meyts, P., 34
 Demosky, S.J., Jr, 1447
 Dennis, S.C., 415
 Denver, A.E., 652
 Denver, E., 961
 De Riva, C., 707
 Desbois-Mouthon, C., 1493
 Desiderio, D.M., 1108
 Després, J.-P., 261, 378, 882, 1042
 De Zeeuw, D., 723
 Di Biase, N., 1065
 Dietze, G.J., 535
 Diraison, F., 817
 Di Stasio, M.E., 1342
 Doblinger, A., 856
 Donahoe, P.K., 190
 Donati, M.A., 957
 Donohue, S.M., 652
 Dorcus, B., 753
 Douglass, M.A., 315
 Dowda, M., 1427
 Dowse, G.K., 627
 Drago, S., 1527
 Driscoll, H.K., 248, 300
 Drosowsky, M.A., 63
 Drouin, P., 430
 Dubrey, S.W., 1203
 Dullaart, R.P.F., 723
 Duncan, B.W., 699
 Duncan, S.D., 126
 Dunlap, J.A., 229

 Dupré, J., 120
 Durstine, J.L., 1427
 Dziura, J., 1422

 Eakman, G.D., 1521
 Ebmeier, K.P., 974
 Eckfeldt, J.H., 223
 Edén, S., 1415
 Efendic, S., 587
 Eichberg, J., 320
 Eklöf, R., 435
 El Midaoui, A., 810
 El-Rachid, R., 1011
 Emoto, M., 782
 Endert, E., 1458
 Eriksson, B.O., 1501
 Erkelens, D.W., 827
 Escofet, F.J.C.S., 1395
 Esler, M.D., 1487
 Essén, P., 1388
 Estivariz, F.E., 565
 Etzioni, A., 1069
 Ezaki, O., 1539

 Fabris, S.E., 987
 Fainstein-Day, P., 1527
 Falletti, E., 498
 Fallucca, F., 1065
 Fan, M.-Y., 1136
 Fang, S., 492
 Federlin, K., 1508
 Fehmann, H.-C., 759
 Feldman, E.L., 865
 Feng, L., 389
 Fernandez, M., 961
 Ferrannini, E., 998, 1402
 Field, C.J., 848
 Fielding, B.A., 947
 Fields, M., 49
 Fievet, C., 430
 Filippi, L., 957
 Fink, L., 133
 Fischer, J.E., 28
 Fischman, A.J., 1161
 Fisher, S.J., 587
 Flaster, E., 43
 Föger, B., 856
 Fogt, D.L., 535
 Folsom, A.R., 223
 Foniciello, M., 606
 Fonseca, V., 133
 Formanek, D., 137
 Fortuny, A., 24, 515
 Foyle, W.-J., 961
 Fradin, S., 63
 Franklin, R.B., 442
 Frayn, K.N., 947
 Freedman, D., 1214
 Frenkel, R.A., 822
 Freyburger, G., 57
 Frier, B.M., 974
 Frigato, F., 707
 Frost, G., 669
 Fruchart, J.-C., 430, 686, 1415
 Fujii, M., 196

 Fujimoto, K., 1284
 Fujishima, M., 155
 Fujitani, S., 184
 Fujiwara, T., 571
 Fürst, P., 1208

 Gagliardino, J.J., 565, 1527
 Gallagher, D., 992
 Galvan, A.Q., 998, 1402
 Gambardella, A., 1248
 Gannon, M.C., 492
 Gansevoort, R.T., 723
 Garbagnati, E., 196
 Gareeboo, H., 627
 Garibaldi, S., 1319
 Garlick, P.J., 1388
 Garner, M.H., 927
 Garrido, J., 515
 Gastaldelli, A., 1153
 Gebhart, S.S.P., 526
 Gedulin, B.R., 1
 Gentile, S., 1248
 Ghigo, E., 342
 Giacca, A., 587
 Giaccari, A., 606
 Gilsanz, V., 76
 Gin, H., 57
 Gingerich, R.L., 951
 Giovannetti, P., 606
 Godsland, I.F., 328
 Göke, B., 759
 Gold, A.E., 974
 Gomez Dumm, C.L., 1527
 Gomis, R., 873
 Gonano, F., 498
 Goodwin, G.M., 974
 Goossens, M., 1493
 Gotoh, Y., 1284
 Goubet, S., 652
 Gould, G.W., 1466
 Grant, D.R., 120
 Greco, J., 1021
 Green, R., 481
 Greene, D.A., 865, 1466
 Greene, R., 1214
 Greene, S.M., 126
 Greenspan, J., 673
 Gregory, R.B., 101
 Griffin, R.L., 162
 Grill, V.E., 981
 Grøfte, T., 1016
 Gronzález-Clemente, J.M., 873
 Grottoli, S., 342
 Gualdiero, P., 1248
 Guan, J., 120
 Guerci, B., 430
 Guilhem, I., 306
 Gupta, V., 492
 Gurreri, G., 1319
 Gutman, R., 1527

 Haenni, A., 1221
 Haffner, S.M., 876
 Hagve, T.-A., 1415
 Hahn, A.W.A., 285

- Hales, C.N., 1551
 Hall, J.L., 542
 Halliday, D., 915
 Hamsten, A., 1375
 Hanafusa, J., 206
 Handberg, A., 598
 Hanehira, T., 1323
 Hanzalova, J., 293
 Hara, Y., 731
 Harano, Y., 731
 Hardman, T.C., 1203
 Hargrove, D.M., 404
 Harris, T., 992
 Haruta, T., 1474
 Harvey-Berino, J.R., 174, 179
 Hasegawa, H., 196
 Hashimoto, K., 1312
 Hashimoto, N., 862
 Hasselgren, P.-O., 28
 Hata, K., 510
 Hautanen, A., 1533
 Hayakawa, T., 774
 Haydon, B., 753
 Head, C., 691
 Heimberg, M., 1108
 Heinze, E., 34
 Heiss, G., 699
 Helton, E.D., 865
 Henderson, J., 542
 Henly, D.C., 101
 Henriksen, E.J., 535
 Henriksen, J.E., 82, 598
 Hepburn, D.A., 974
 Hermans-Limpens, T.J.F.M.B., 1004
 Hernandez, L.A., 542
 Hernell, O., 908
 Herrou, M., 63
 Heymsfield, S.B., 992
 Higa, S., 1168
 Higashino, K., 1354
 Hilton, F.K., 126
 Hilton, M.A., 126
 Himberg, J.-J., 844
 Hiraoka, M., 510
 Hirata, K., 1323
 Hirose, J., 731
 Ho, S.B., 1179
 Hochberg, Z., 424
 Hodge, A.M., 627
 Hoeg, J.M., 1447
 Holaday, N.J., 450
 Holbert, R.I., 519
 Holm, C., 862
 Holme, E., 1501
 Holst, J.J., 82
 Holt, P.R., 1179
 Hong, S.K., 1408
 Hoogerbrugge, N., 680
 Hori, C., 510
 Horio, T., 1326
 Hother-Nielsen, O., 82
 Huang, T.-S., 718
 Hudson, P.L., 190
 Hughes, S.M., 1108
 Hughes, T.A., 1108
 Huh, K.B., 594
 Hunter, K., 1388
 Igau, B., 430
 Ikebuchi, M., 731
 Ikeda, M., 1326
 Ikemoto, S., 1539
 Ikenoue, T., 184
 Ilic, V., 947
 Ilondo, M.M., 34
 Imamura, T., 1474
 Imura, H., 1095
 Inoue, S., 1368
 Inoue, T., 1080
 Iozzo, P., 606
 Irsigler, K., 137
 Ishida, K., 475, 1288
 Ishihara, H., 1474
 Ishii, N., 1348
 Ishiki, M., 1474
 Ishimura, E., 782
 Ishizuka, T., 206
 Itakura, H., 1539
 Ito, T., 774
 Itoh, H., 1348
 Iwakiri, R., 1284
 Iwaoka, H., 862
 Iwase, M., 155
 Jacob, R.J., 1422
 Jacob, S., 535
 Jacobs, W., 334
 Jansen, H., 680
 Jayo, M.J., 1254
 Jeevanandam, M., 450
 Jehle, P., 759
 Jelic, T.M., 248
 Jennings, G.L., 1487
 Jensen, M.D., 662
 Jespersen, J., 833
 Jessen, J.H., 712
 Jeukendrup, A.E., 915
 Jialal, I., 876
 Jodal, U., 1501
 Johansson, J.-O., 362, 370
 Johnson, C.M., 662
 Johnston, J.M., 822
 Jokelainen, K., 844
 Jones, P.J.H., 241
 Jönsson, A., 1501
 Jørgensen, O.L., 1016
 Kaczmarczyk, S.J., 622
 Kahn, S., 1021
 Kalhan, S., 753
 Kamada, T., 150
 Kanabrocki, E.L., 1021
 Kanatsuka, A., 862
 Kanazawa, H., 1323
 Kandeel, F.R., 838
 Kano, H., 1323, 1326
 Karabatas, L.M., 940
 Karhunen, L.J., 168
 Karila, T., 844
 Karpe, F., 1375
 Kashiwagi, A., 559
 Kato, K., 1095
 Kato, Y., 457
 Kaufman, A., 526
 Kaufman, F., 76
 Kautzky-Willer, A., 486
 Kawaguchi, T., 1323
 Kawakubo, K., 1368
 Kawamori, R., 150
 Kawazu, S., 218
 Keenan, B.S., 1521
 Kellerman, L.A., 542
 Keltikangas-Järvinen, L., 614, 1533
 Keogh, B., 669
 Kerr, D.S., 162
 Kesäniemi, Y.A., 143
 Khoury, P.R., 469
 Kieffer, T.J., 1335
 Kikkawa, R., 1189
 Kim, C.H., 1408, 1443
 Kim, G.S., 1443
 Kim, K.R., 594
 Kim, S.Y., 1042
 Kim, Y.-B., 1080
 Kinsley, B.T., 1434
 Kishimoto, M., 150
 Kittinantavorakoon, C., 804
 Kjems, L.L., 833
 Klausen, I.C., 1016
 Klein, S., 357, 767
 Klempere, M., 1119
 Klingner, B., 1263
 Kloet, L.T., 680
 Kobayashi, M., 1474
 Kodama, H., 1312
 Kofod, H., 1335
 Kohno, M., 1323, 1326
 Koide, M., 196
 Kok, N., 1547
 Kolanowski, J., 383
 Komiya, I., 1168
 Komuro, M., 1080
 Kondo, M., 787
 König, P., 856
 Königsrainer, A., 856
 Konishi, Y., 510
 Koontz, D., 526
 Korthals, J.K., 902
 Kowarski, A.V., 424
 Koyama, T., 1284
 Kraus-Friedmann, N., 389
 Krentz, A.J., 1214
 Kretschmer, N., 747
 Kubota, M., 150
 Kubota, M., 150
 Kurowski, T.G., 519
 Kuzuya, H., 1095
 Kwong, J., 1335
 Laaksonen, R., 844
 Labate, A.M.M., 351
 Labrousse, S., 57
 Laghi, F., 712
 Lahrmann, H., 137
 Lai, J.-S., 718

- Lamarche, B., 882
 Lammi-Keefe, C., 241
 Landou, C., 1375
 Lane, J.T., 492
 Langer, M., 767
 Langin, D., 862
 Lant, A.F., 1203
 Lantz, H., 634
 Lappalainen, R.I., 168
 Large, V., 897
 Laron, Z., 1263
 Larsson, H., 502
 Latour, M.A., 1296
 Lattimer, S.A., 865
 Laube, H., 1508
 Lechleitner, M., 856
 Lecomte, P., 306
 Lee, E.J., 594
 Lee, H.C., 594
 Lee, K.-U., 1408, 1443
 Lee, M.-S., 550
 Lee, Y.-S., 966
 Leeds, A., 669
 Lehtimäki, T., 797
 Lemieux, S., 378
 Lemming, L., 1016
 Leonetti, F., 606
 Lerman, R.H., 12
 Leslie, R.D.G., 1203
 Lessire, H., 1208
 Levy, C.J., 1434
 Levy, R., 1069
 Lewis, C.G., 49
 Lewis, G.F., 1034
 Li, Z., 241
 Lichtenstein, A.H., 241
 Lickley, H.L.A., 587
 Lien, I.-N., 718
 Lim, J., 92
 Lindenbaum, J., 1179
 Lindstedt, S., 1501
 Ling, P.-R., 1273
 Ling, Z.-C., 981
 Linn, T., 1508
 Lisato, G., 1196
 Litchfield, A., 987
 Lithell, H., 1221
 Liu, Y., 442
 Liu, Y.J., 1125
 Lloyd, C.E., 268
 Lombardo, Y.B., 1527
 Lovejoy, J.C., 1119
 Lowitt, S., 902
 Ludvik, B., 486
 Lupien, P.J., 261, 882, 1042
 Lupton, J.R., 1179
 Lure, M.D., 49
 Lutton, C., 4
 Luu, K., 767
 Lyytinen, H., 614

 Ma, J., 223
 Ma, R., 43
 Maccario, M., 342
 McCarter, R.J., Jr, 424
 McCormick, J.B., 1021
 McCormick, M.T., 315
 McGovern, P.G., 223
 McGuinness, O.P., 571
 McIntosh, C.H.S., 1335
 McKinley, M., 1214
 MacLaughlin, D.T., 190
 MacLeod, K.M., 974
 McMahan, C.A., 1174
 McMahon, D., 1179
 McMahon, R.P., 469
 McNamara, J.R., 241
 McNeill, J.H., 1053
 McNurlan, M.A., 1388
 Maegawa, H., 559
 Maekawa, K., 782
 Maggard, M.A., 190
 Magnani, P., 1466
 Magot, T., 4
 Maguire, C., 753
 Mahoudeau, J., 63
 Maki, K.C., 712
 Maki, T., 184
 Makino, H., 862
 Maliranta, H.M., 143
 Malone, J.I., 902
 Manciet, G., 1059
 Manz, F., 1483
 Manzella, D., 1248
 Marchetto, S., 1196
 Marciano, D., 92
 Maréchaud, R., 306
 Margreiter, R., 856
 Mârin, P., 370
 Marinari, U.M., 1319
 Markus, U., 759
 Marre, M., 306
 Martínez, S., 24
 Martínez de Osaba, M., 24, 515
 Martini, M., 109
 Martino, M.A., 1254
 Marugo, A., 72
 Marugo, M., 72
 Maruyama, K., 1539
 Masarei, J.R.L., 279
 Masoni, A., 998
 Massucco, P., 285
 Masuoka, N., 1312
 Matsui, H., 774
 Matsunaga, C., 1284
 Matsuo, N., 1368
 Matsuo, S., 1284
 Matsuo, T., 1080
 Matthews, K.A., 300
 Mattiello, L., 285
 Maugendre, D., 306
 Mazzeo, R.S., 1487
 Megerman, J., 691
 Meijer, E., 827
 Menzel, H.-J., 856
 Meozzi, M., 72
 Mercado, M., 1521
 Merkle, M., 137
 Merli, M., 606
 Metcalf, P., 699
 Meyer, T.A., 28
 Meyn, S., 1447
 Mickle, A.W., 293
 Miettinen, H., 876
 Miller, R., 767
 Millington, D.S., 865
 Mimura, K., 822
 Minami, M., 1326
 Miranda, C., 902
 Mitchell, G., 481
 Miura, M., 510
 Miwa, I., 1095
 Miyoshi, Y., 970
 Mizota, M., 1095
 Mizuno, A., 475, 1288, 1360
 Moghetti, P., 1029
 Mohamed-Ali, V., 652
 Mokshagundam, S.P.L., 951
 Molino, G., 109
 Møller, N., 211, 1016
 Moorjani, S., 261, 882, 1042
 Morello, R., 63
 Morgen, J.P., 1422
 Morii, H., 782
 Morioka, H., 1474
 Morishima, T., 150
 Morita, H., 206
 Moriwaki, Y., 1354
 Morlion, B.J., 1208
 Morris, I.D., 645
 Morrison, J.A., 469
 Morroco, M., 550
 Moss, S.F., 1179
 Motz, E., 498
 Muggeo, M., 1029, 1557
 Muguruma, K., 822
 Mularoni, E., 285
 Mune, T., 206
 Munshi, M.N., 133
 Murakami, N., 1095
 Murakami, T., 1288
 Murase, K., 774
 Murray, D.K., 293
 Muscelli, E., 998

 Nadeau, A., 810, 882, 1042, 1383
 Nadler, J.L., 838
 Nagamine, F., 1168
 Nagi, D.K., 1243
 Nakajima, R., 1080
 Nakamura, H., 970
 Nakamura, K., 1330
 Nakamura, T., 196
 Nakano, T., 1354
 Nakao, K., 970, 1095
 Nam, M.S., 594
 Nam, S.Y., 594
 Nara, Y., 457
 Nardone, N.A., 404
 Natali, A., 998, 1402
 Navarro, P., 873
 Neal, D.N., 571
 Negri, C., 1029
 Negri, M., 1065
 Nemchausky, B.A., 1021

- Ness, E.M., 1551
 New, M.I., 1011
 Ng, L.L., 114
 Nguyen, L.B., 673
 Nilsson-Ehle, P., 686
 Nishizawa, Y., 782
 Niskanen, L.K., 168
 Noakes, T.D., 415
 Noguchi, Y., 28
 Noma, Y., 475, 1360
 Nosaka, K., 510
 Noto, D., 1296
 Novembre, E., 957
 Nozaki, O., 862
 Numakami, K., 1348
 Nunoi, K., 155
 Nuttall, F.Q., 492

 Obasanjo, I.O., 463
 O'Brien, S.F., 1101
 Odeon, M., 897
 Odetti, P., 611, 1319
 Ogata, S.-i., 1284
 Ogawa, Z., 1348
 Ogle, C.K., 28
 Ogris, E., 137
 Ohata, H., 1354
 Ohno, T., 218
 Ohta, M., 1095
 Okabayashi, Y., 196
 Okishio, K., 1323
 Okuda, J., 1095
 Okumura, K., 774
 Oleandri, S.E., 342
 Olivecrona, T., 1375
 Ooi, B.S., 1125
 Ooi, L.S.M., 279
 Orchard, T.J., 268
 Ordoas, J., 241
 Ørskov, L., 211
 Ortac, K., 1508
 Oscarsson, J., 362, 370
 Ose, L., 1415
 Osei, K., 1514
 Otsuki, M., 196
 Otto, C., 1305
 Ottosson, M., 370
 Ouguerram, K., 4

 Pachiaudi, C., 817
 Pacini, G., 486
 Paggi, A., 1342
 Palos, G., 856
 Pan, W.-H., 966
 Panesar, N.S., 279
 Pansin, P., 804
 Paolisso, G., 1248
 Pappas, S., 652
 Pareja, A., 1395
 Park, C.S., 1443
 Park, J.Y., 1408, 1443
 Park, K.S., 1408
 Park, S., 550
 Park, S., 550
 Park, S.W., 1408

 Parker, J.C., 404
 Pasquali, R., 351
 Pastorale, C.F., 940
 Pate, R.R., 1427
 Patsch, J.R., 856
 Patterson, B.W., 1296
 Pauly, R., 1335
 Pederson, R.A., 1335
 Peiris, A.N., 951
 Peña, J., 579
 Peretti, P., 109
 Peroni, O., 897
 Persson, L.Å., 908
 Persson, L.M., 404
 Pérusse, L., 378
 Peskar, B.M., 1208
 Petersen, K.R., 833
 Petersen, S.C., 450
 Peterson, R.G., 320
 Phillip, M., 424
 Phillips, D.I.W., 947
 Phillips, J.W., 101
 Phillips, W.T., 1174
 Phung, T.L., 1056
 Pia, A., 109
 Pierson, R., N., Jr, 992
 Pietrzik, K., 1483
 Pilati, S., 1557
 Pinkney, J., 961
 Pitukcheewanont, P., 334
 Pofahl, A.B., 248
 Poirier, P., 1383
 Pons, F., 515
 Porkka, K.V.K., 797
 Pörksen, N., 211
 Pousette, Å., 435
 Pousse, P., 63
 Powrie, J.K., 1101
 Prager, R., 486
 Prando, R., 611
 Pratley, R., 1243
 Primerano, D.A., 300
 Procopio, M., 342
 Proietto, J., 622, 987
 Pronzato, M.A., 1319
 Proudler, A.J., 328, 1375
 Prud'homme, D., 261, 882
 Puchstein, C., 1208
 Pulai, J., 1296

 Qu, Z., 1273

 Radmacher, P.G., 126
 Raguso, C.A., 1153
 Räikkönen, K., 614, 1533
 Rajab, A., 1230
 Rajkumar, C., 1487
 Randazzo, M., 72
 Ranganathan, S., 1089
 Rao, D.C., 378
 Räsänen, L., 797
 Ravaja, N., 614
 Reaven, G.M., 1062
 Remer, T., 1483
 Reznik, Y., 63

 Riccio, A., 1196
 Rice, T., 378
 Richards, G.E., 1521
 Richter, W.O., 1305
 Riggio, O., 606
 Rink, T.J., 1
 Ritsch, A., 856
 Ritter, M.M., 1305
 Rizvi, A., 1062
 Roberfroid, M., 1547
 Rodriguez-Paz, G., 315
 Rodríguez-Villar, C., 873
 Roe, S., 645
 Roe, T.F., 76
 Rohmer, V., 306
 Romijn, J.A., 1458
 Rooyackers, O.A., 1279
 Rosella, G., 622
 Rosenblat, M., 1069
 Rothwell, N.J., 645
 Ruderman, N.B., 519
 Ruiz, J., 1130
 Russo, A., 498
 Russo, I., 285
 Ryan, M., 1021

 Sady, M., 753
 Sady, S., 753
 Sagara, Y., 1312
 Saggiani, F., 1557
 Saha, A.K., 519
 Saï, P., 306
 Saini, A., 1125
 St-Amand, J., 261
 Saito, Y., 862
 Sakai, T., 1284
 Sakane, N., 787
 Sakurai, Y., 767
 Salem, A.F., 902
 Salen, G., 673
 Salman, U.A., 1174
 Samols, E., 951
 Sampson, M.J., 961
 Sanai, K., 1368
 Sandgren, A., 1388
 Sandhofer, C.R., 492
 Sanna, G., 998
 Sano, T., 475, 1360
 Sansoé, G., 109
 Santamarina-Fojo, S., 1447
 Saris, W.H.M., 915, 1235
 Sarkkinen, E.S., 143
 Saruta, T., 1348
 Sasaki, S., 970
 Sasaoka, T., 1474
 Sato, F., 1330
 Sato, T., 457
 Sato, Y., 155
 Sauerwein, H.P., 1458
 Savolainen, M.J., 143
 Sawa, T., 1474
 Sbraccia, P., 606
 Schade, D.S., 1214
 Schaefer, E.J., 241, 1267
 Scheving, L.E., 1021

- Schmidt, M.I., 699
 Schmitz, O., 211
 Schocken, D.D., 315
 Schonfeld, G., 1296
 Schreiber, G.B., 469
 Schuster, D.P., 1514
 Schwab, U.S., 143, 241
 Schwandt, P., 1305
 Schwartz, J.G., 1174
 Scott, S., 838
 Seed, M., 328
 Sekine, T., 1080
 Sekiya, M., 150
 Seppälä, T., 844
 Seri, K., 1368
 Sert-Langeron, C., 1493
 Shamuburek, R.D., 1447
 Sharrett, A.R., 699
 Shaw, K.W., 1101
 Shepherd, K.L., 404
 Sherwin, R.S., 1422
 Shewchuk, L.D., 848
 Shi, J., 475
 Shi, Z.Q., 587
 Shibata, T., 206
 Shichiri, M., 150
 Shigeta, Y., 559, 1189
 Shima, K., 475, 1288, 1360
 Shimabukuro, M., 1168
 Shimada, F., 862
 Shimauchi, A., 774
 Shimizu, K., 774
 Shinozaki, K., 731
 Shinzato, T., 1168
 Shiota, M., 481
 Shirazi, P., 1021
 Shirohara, H., 196
 Shoffner, J.M., 526
 Shulman, G.I., 1422
 Shymko, R.M., 34
 Siczkowski, M., 114
 Sidossis, L.S., 1153
 Siegel, R.D., 1267
 Siguel, E.N., 12
 Silbergeld, A., 1263
 Sima, A.A.F., 865, 1466
 Simon, J., 469
 Simonson, D.C., 1434
 Sironi, A.M., 1402
 Sitiprija, V., 804
 Sjöström, L., 634
 Skorodin, M.S., 712
 Skouby, S.O., 833
 Sluiter, W.J., 723
 Smith, D., 669
 Smith, H.C., 1056
 Smith, R.J., 1273
 Snook, J.T., 550
 Soennichsen, A.C., 1305
 Soliman, A.T., 1230
 Sothorn, R.B., 1021
 Sowden, M.P., 1056
 Sparks, C.E., 1056
 Sparks, J.D., 1056
 Spinucci, G., 351
 Sprecher, D., 469
 Sriboonlue, P., 804
 Srinivasan, S.R., 235
 Srivastava, N., 1296
 Srivastava, R.A.K., 1296
 Staels, B., 680
 Stagner, J.I., 951
 Stamford, B.A., 923
 Stanley, W.C., 542
 Stasny, E., 550
 Stern, M.P., 876
 Stevens, M.J., 865
 Stevenson, R.W., 404
 Stobie-Hayes, K.M., 347
 Stone, A., 133
 Sturm, G., 1208
 Subbiah, M.T.R., 411
 Sudo, M., 510
 Sugahara, K., 1312
 Suh, K.I., 1408
 Sundt, E., 1415
 Suzuki, K., 1348
 Suzuki, M., 731, 1080
 Szymanski, L.M., 1427
 Tagami, T., 970
 Taguchi, M., 1330
 Taimela, S., 797
 Taira, M., 862
 Takahara, N., 559
 Takahashi, M., 1539
 Takahashi, S., 1354
 Takasu, N., 1168
 Takata, Y., 1474
 Taliano, M., 342
 Talley, G.D., 1447
 Tamburrano, G., 606
 Tamura, T., 1080
 Tancrede, G., 810
 Tang, M., 411
 Targher, G., 1557
 Taylor, R., 947
 Tchernof, A., 882
 Tegelman, R., 435
 Teller, W.M., 34
 Templeton, D.M., 1136
 Terada, M., 1189
 Terzolo, M., 109
 Thériault, G., 1042
 Thiadière, E., 1059
 Third, J.L.H.C., 1021
 Thomaseth, K., 486
 Thompson, P.D., 935
 Thorburn, A., 987
 Thu, T.H., 383
 Tiao, G., 28
 Tiengo, A., 1196
 Tinahones, F.J., 1395
 Tinivella, M., 109
 Tint, G.S., 673
 Toffolo, G., 254
 Toki, Y., 774
 Tokuyama, K., 1080
 Tolley, E.A., 1108
 Tomlinson, B., 966
 Tomono, S., 218
 Tompkins, R.G., 1161
 Tonnarini, G., 1065
 Tonstad, S., 1415
 Tornvall, P., 1375
 Torwesten, E., 1208
 Tosi, F., 1029
 Tosukhowong, P., 804
 Tracy, R., 1243
 Tremblay, A., 882, 1042, 1383
 Tröbinger, G., 856
 Trovati, M., 285
 Truong, M.P.M., 738
 Tsai, C.-W., 966
 Tserng, K.-T., 162
 Tsukahara, H., 510
 Tsunoda, N., 1539
 Tulley, R., 1119
 Tuomilehto, J., 627
 Turco, S., 1130
 Turner, A.G., 1487
 Turpeinen, A.K., 168
 Turrin, M., 1196
 Umekawa, T., 787
 Usui, I., 1474
 Utermann, G., 856
 Uusitupa, M.I.J., 143, 168
 Vaag, A., 598
 Van Dop, C., 76
 Van het Hof, K.H., 1004
 Van Rossum, G.D.V., 1130
 Van Voorhis, R., 550
 Varasteh, B., 1062
 Varricchio, M., 1248
 Vaswani, A., 43
 Vaz, M., 1487
 Venkatesan, N., 92
 Verboeket-van de Venne, W.P.H.G., 1004
 Verma, S., 1053
 Verza, M., 1248
 Vesely, D.L., 315, 1021
 Vessby, B., 908
 Vicennati, V., 351
 Vidal, J., 873
 Vierhapper, H., 658
 Vigili de Kreutzenberg, S., 1196
 Viikari, J.S.A., 797
 Virgili, F., 707
 Visser, M., 992
 Vlachopapadopoulou, E., 1011
 Vogel, S., 241
 Vogiatzi, M.G., 1011
 Vranic, M., 587
 Wabitsch, M., 34
 Wagenmakers, A.J.M., 915, 1279
 Wagner, J.D., 1254
 Wakisaka, M., 155
 Waldhäusl, W., 486
 Walker, E.M., 248
 Walker, J., 923
 Wallace, D., 526
 Wang, X., 1108

Wang, X.L., 1263
 Wang, Y.-H., 718
 Wang, Z., 992
 Wanke, T., 137
 Wareham, N.J., 1551
 Watson, R.L., 699
 Wattigney, W.A., 235
 Watts, G.F., 1101
 Weaver, D.S., 463
 Weber, J.-M., 357
 Weltan, S.M., 415
 Wernerman, J., 1388
 Westerterp, K.R., 1004
 Westerveld, H.T., 827
 Westra, S.J., 76
 Weststrate, J.A., 1004
 Wiese, T.J., 229
 Wiklund, O., 370
 Wilcken, D.E.L., 1263
 Wilcox, H., 1108
 Williamson, M.P., 120
 Wilson, L.L., 738
 Wilson, P.W.F., 1267
 Wing, R.R., 268

Winters, S.J., 935
 Wolfe, R.R., 357, 1153
 Wolthers, T., 1016
 Wong, J., 1487
 Wynn, V., 328

Xue, C., 1368

Yada, T., 184
 Yamahita, J.-i., 1354
 Yamamoto, M., 206
 Yamamoto, T., 1354
 Yamasaki, Y., 150
 Yamori, Y., 457
 Yarasheski, K.E., 254
 Yasuda, H., 1189
 Yasuda, K., 206
 Yasuda, N., 1330
 Yasunari, K., 1326
 Yokokawa, K., 1326
 Yorek, M.A., 229
 Yoshida, T., 787
 Yoshikawa, J., 1323, 1326

Yoshimasa, Y., 1095
 Yoshimoto, K., 787
 Yoshinari, M., 155
 Yoshizumi, H., 155
 Young, A.A., 1
 Yudkin, J.S., 652, 961

Zachwieja, J.J., 254
 Zajac, J.D., 622
 Zammarchi, E., 957
 Zawalich, K.C., 273
 Zawalich, W.S., 273
 Zhang, J., 1312
 Zhang, X.-J., 767
 Zhao, B., 822
 Zhong, R., 120
 Zhou, Y.-P., 981
 Zhu, M., 1360
 Ziegler, O., 430
 Zimmermann, M.G., 747
 Zimmet, P.Z., 627
 Zipf, W.B., 1514
 Zmuda, J.M., 935
 Zwick, H., 137

SUBJECT INDEX

A-4166 (*N*[(*trans*-4-isopropylcyclohexyl)-carbonyl]-D-phenylalanine), somatostatin and insulin secretion due to, 184-189
 AA (acetoacetate) in familial leucine-sensitive hypoglycemia, glucose effects on, 958
 AAs, *see* Anabolic androgenic steroids
 Ab(s) (antibodies), pancreatic cell islet, characteristics of subjects positive to, who progressed to IDDM, 310
 Abdominal adipose tissue (AT)
 distribution of, and metabolic risk factors, race and, 1119-1124
 hormone replacement therapy effects on, in postmenopausal subjects, 1260
 in NIDDM, 1290
 see also Visceral adipose tissue
 Ablation, medial basal hypothalamic, effects of, on EtOH-induced PRL release, 1332
 Acarbose
 effects of, on blood glucose after sucrose ingestion, 1370-1371
 effects of, on fecal nutrients, colonic pH, short-chain fatty acids, and rectal proliferative indices, 1179-1187
 ACE, *see* Angiotensin-converting enzyme gene; Angiotensin-converting enzyme inhibitor(s)
 Acetoacetate (AA) in familial leucine-sensitive hypoglycemia, glucose effects on, 958
 Acetyl-L-carnitine (ALC) in STZ-DM
 deficiency in, and altered nerve *myo*-inositol content, Na⁺/K⁺ ATPase activity, and MNCV, 865-871
 effects of sorbinil and, on peripheral nerve structure, chemistry, and function, 902-907
 N-Acetylcyclic cystathionine, LC/APCI-MS in identification of cyclic cystathionine sulfoxide and, in cystathioninuria, 1312-1316
 Acetylhydrolase-platelet-activating factor (AH-PAF) in nephrotic syndrome, 823, 825-826
 Acidic sterols, fecal excretion of, in sitosterolemia, 675
 Aciduria, dicarboxylic, due to MCTs, abnormal FA oxidation, and fasting in children, compared, 162-167

Acipimox (ACX)

 effects of decreasing plasma FFAs by, on hepatic glucose metabolism in normal subjects, 1408-1414
 see also Acipimox, effects of, on GH response to GHRH in obesity
 Acipimox (ACX), effects of, on GH response to GHRH in obesity alone or combined with arginine in obese women, 342-346
 long-term therapy with ACX potentiating GH response to GHRH by decreasing serum FFAs in obese men, 594-597
 m-Aconitase, PRL-regulating citrate oxidation and, in prostate epithelial cells, 442-449
 Acromegalic pituitary adenomas, PKC and cAMP responses to GH secretion in, 206-210
 Acromegaly, functional liver mass and plasma flow in, before and after long-term octreotide therapy, 109-113
 ACTH, *see* Corticotropin
 Activated partial thromboplastin time (APTT) in hypercholesterolemia thrombophilia, 967, 968
 Acute asthma, plasma adrenomedullin in, 1323-1325
 Acute hypoglycemia, effects of, on rCBF in IDDM, impaired hypoglycemia awareness, 974-980
 ACX, *see* Acipimox
 Adenine nucleotides
 RBC, effects of xylitol on, 1356, 157
 see also ADP; AMP; ATP
 Adenomas, pituitary acromegalic, PKC and cAMP responses to GH secretion in, 206-210
 Adenosine diphosphate, *see* ADP
 Adenosine monophosphate, *see* AMP
 Adenosine triphosphatase, *see* Na⁺/K⁺ ATPase
 Adenosine triphosphate, *see* ATP
 Adenoviral delivery of LDL receptors to hyperlipidemic subjects, HDLs and, 1447-1457
 Adhesive (and proliferative) properties of VSMCs, nonenzymatic glycation of Fn impairing, 285-292

Adipocyte(s)

- AT FAs and size and number of, in boys from birth to 9 years of age, 1395-1401
- basal and insulin-stimulated glucose transport in, TNF- α effects on, 1089-1094
- GH effects on newly differentiated, 34-42
- glucose oxidation to CO₂, effects of Mg deficiency on, 839-840
- hormone replacement therapy effects on size of, in postmenopausal subjects, 1258-1259

Adipocyte precursor cells, GH effects on newly differentiated adipocytes and, 34-42

Adipose tissue (AT; body fat)

- abdominal, *see* Abdominal adipose tissue
- FAs in, and size and number of adipocytes in boys from birth to 9 years of age, 1395-1401; *see also* Adipocyte(s); Adipocyte precursor cells
- and fibrinolytic potential, 1429
- in healthy Indian and Swedish men, cardiovascular risk factors and, 634-644
- intercapsular brown, and CL316,243 effects on SNS activity, 788
- and intramuscular TG content, 949
- of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- in NIDDM, role of loss of, in exercise-induced improvement in plasma lipids, 1383-1395
- oral albuterol effects on, 715
- and regional FFA kinetics, 663
- and relationship between hepatic and peripheral insulin resistance and PAI-1, 1244
- relationship between plasma insulin level, BP in normal, diabetic, and DKA subjects, and production of PGE₂, PGI₂, and 6-keto-PGF_{1 α} by, 691-698
- relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity and, 263
- subcutaneous, *see* Subcutaneous adipose tissue
- visceral, *see* Visceral adipose tissue
- see also* Adiposity; Fat-free mass

Adiposity

- influence of age, sex and, on metabolically active component of FFM, 992-997
- see also* Adipose tissue; Obesity

Adolescent boys

- autonomically mediated physiological responses to experimentally induced mental stress in, IRS and, 614-621
- insulin resistance in Swedish, 908-914
- pubertal obese, urate changes in, 203-210
- see also* Adolescent obesity

Adolescent girls

- Swedish, insulin resistance in, 908-914
- see also* Adolescent obesity

Adolescent obesity

- adult obesity and multiple cardiovascular risk factors associated with, 235-240
- DHEA in morbid, effects of weight, body composition, lipids, and insulin resistance on, 1011-1015
- urate changes in pubertal obese boys, 203-210

ADP (adenosine diphosphate)

- muscle protein synthesis and degradation and, 1281

 α (alpha)-Adrenergic hormones, role of, in regulation of gluconeogenesis, 392-394

- β_3 (beta₃)-Adrenoceptor agonist, CL316,243 as, effects of, on SNS activity, 787-791

Adrenocorticotropin, *see* Corticotropin

Adrenomedullin (AM), plasma, in acute asthma, 1323-1325

Adult(s), *see* Adult-onset insulin-dependent diabetes mellitus; Men; Normal adult subjects; Women; Young adults and specific conditions

Adult-onset insulin-dependent diabetes mellitus (IDDM), effects of intensive therapy on insulin sensitivity and insulin reserve in, 1508-1513

Adverse effects of VS, 1131-1132

Aerobic exercise, effects of resistance and, on body composition and metabolism following diet-induced weight loss, 179-183

Age

- and abdominal AT distribution, metabolic risk factors and, 1120
- of acromegalic subjects, *see* Age of acromegalic subjects
- and androgen regulation of GHBP, 1522
- of Bardet-Biedel syndrome children, 1232, 1233
- birth to 9 years of, AT FAs and size and number of adipocytes from, in boys, 1395-1401
- and body composition of healthy Indian and Swedish men, 635
- of CAD subjects, 1377
- of cancer patients, response to radiation therapy and, 768
- of CHD subjects, 670
- and circadian relationships between serum Ca, serum phosphate, and circulating ANPs, 1022
- of diabetic subjects, *see* Age of diabetic subjects
- and effects of parasympathetic denervation of liver and pancreas on glucose kinetics, 988
- exercise and, *see* Age, and exercise
- of FHLB subjects, 1297
- of FHTG and FDL subjects, 1308
- and fibrinolytic potential, 1429
- of GH-deficient men, 363, 371
- and glucose processing during FSIGT, 599
- of hirsute women, *see* Age of hirsute women
- of hospitalized subjects, 1558, 1559
- of hypercholesterolemic subjects, *see* Age of hypercholesterolemic subjects
- and hyperinsulinemia associated with VPCs, 1250-1252
- of hypertensive subjects, *see* Age of hypertensive subjects
- of hyperthyroidic subjects, and effects of early changes in plasma glucagon on GH response in, 1030
- of hypoglycemic subjects, 1423
- influence of adiposity, sex and, on metabolically active component of FFM, 992-997
- and insulin effects, *see* Age, and insulin
- insulin resistance and, *see* Age, insulin resistance and
- of Laron syndrome subjects, 1264
- of multiple trauma subjects, 451
- of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
- of obese subjects, *see* Age of obese subjects
- and palmitic and stearic acid effects on serum lipids, Lps, and plasma CETP, 144
- of postmenopausal women, 828
- of premenopausal women, *see* Age of premenopausal women
- of PWS subjects, 1515, 1516
- and regional FFA kinetics, 663
- and relationship between growth rate, GHBP, and GH, 425, 426
- and relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity, 263
- and relationship between psychosocial stress and IRS, 1535
- of smokers, *see* Age of smokers
- of β -thalassemia major subjects, 653
- and urinary excretion of T and E₂, 281
- and visceral obesity, *see* Age, visceral obesity and

Age (*Continued*)

see also Aging; Children; Elderly subjects; Infancy; Puberty; Young adults

Age, and exercise

and diet influence on glucose homeostasis and serum lipid levels, 436
and endogenous opioid response to exercise, 139
exercise effects on concentrations of serum TC and LDL-C related to Apo E phenotype in boys and young adults, 798
strenuous exercise effects on glycerol kinetics, 358
and substrate kinetics during prolonged exercise, 418

Age, and insulin

insulin effects on HGP, 83
and insulin effects on intracellular Ca concentrations, insulin resistance and, 1403, 1405
insulin effects on levels of circulating vitamin E, 999
interstitial insulin in non-obese subjects, 952

Age, insulin resistance and

age of nondiabetic Creole, Chinese, and Indian Mauritian, and relationship between weight gain and insulin resistance, 629, 631, 632
and insulin effects on intracellular Ca concentrations, 1403, 1405
and relationship between hepatic and peripheral insulin resistance and PAI-1, 1244

Age, visceral obesity and

visceral adipose tissue and, 379-381
of visceral obesity-insulin resistance-dyslipidemic syndrome subjects, 885

Age of acromegalic subjects

of acromegalic pituitary adenoma subjects, 207
functional liver mass and plasma flow and, 110

Age of diabetic subjects

and sorbitol and glutathione in erythrocytes, 612
see also Age of IDDM subjects; Age of NIDDM subjects

Age of hirsute women

BMD and, 516
hyperandrogenic, GnRH therapy and, 25

Age of hypercholesterolemic subjects

with FH, GH and, 1417
with thrombophilia, 967

Age of hypertensive subjects

with LVH, 1327
urapidil effects on plasma F_n and, 1222

Age of IDDM subjects, 269

of adult-onset IDDM subjects, 1510
apo, Lp, and LDL size and, 1268, 1269
autonomic neuropathy and, 1066
blood cell membrane phospholipid composition and, 59
and endogenous opioid response to exercise, 139
with hypoglycemia, 975
and Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP erythrocyte concentration in IDDM, 928
in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
progression of microalbuminuria and, 1102
with well-controlled IDDM, 1435

Age of NIDDM subjects

and ACE and AGN gene polymorphism, 220
with amino acid polymorphism in HSL, 862, 864
apo, Lp, and LDL size and, 1268, 1269
autonomic neuropathy and, 1066
blood cell membrane phospholipid composition and, 59
cardiovascular risk factors and RBC membrane SLC and, 962
and effects of vanadyl sulfate on CHO and lipid metabolism, 1131

Age of NIDDM subjects (*Continued*)

and gliclazide effects on HGP suppression, 1197
with macrovascular disease, 134
and Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP erythrocyte concentration in NIDDM, 928
of NIDDM Mexican-Americans and non-Hispanic whites, 877, 879
of normotriglyceridemic NIDDM subjects, 64
oral glucose effects on CCK release and, 197
with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
of untreated NIDDM subjects, 493

Age of obese adolescents

cardiovascular risk factors and, 235
effects of insulin resistance, lipids, and body weight on DHEA in morbidly obese adolescents, 1012
urate changes in pubertal boys, 204

Age of obese subjects

HDL-C in obese 10-year-old girls, race and, 469-474
interstitial insulin and, 952
of premenopausal obese women with VAT and SAT, HPA axis activity and, 352
see also Age of obese adolescents; Age, visceral obesity and
Age of premenopausal women
of non-obese premenopausal women, lipid and CHO metabolic risk markers for CHD in, 329
of premenopausal obese women with VAT and SAT, HPA axis activity and, 352

Age of smokers, 1552

and smoking effects on REE, 924

Aging

in women, four-compartment model of body composition in, 43-48
see also Elderly subjects

AGN (angiotensinogen) genes, polymorphism of, in Japanese NIDDM subjects, 218-222

AH-PAF (acetylcholinesterase-platelet-activating factor) in nephrotic syndrome, 823, 825-826

Alacepril, effects of, on hypertension and insulin resistance in STZ-DM, 457-462

Alanine

arterial, portal vein, and hepatic vein, stress hormone effects on, in conscious subjects, 576
MH 7777 effects on concentrations of, 851
octreotide effects on, in IDDM, 214
plasma, effects of *N*-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959

Albumin

stress hormone effects on protein synthesis in, in normal adult subjects, 1388-1394

see also Albumin in IDDM; Albumin in NIDDM; Albuminuria

Albumin in IDDM

RBC membrane phospholipid composition and, 59
urinary excretion of, see Urinary excretion, albumin, in NIDDM

Albumin in NIDDM

cardiovascular risk factors and RBC membrane SLC and, 962, 963

RBC membrane phospholipid composition and, 59
urinary excretion of, see Urinary excretion, albumin, in NIDDM

Albuminuria

gonadectomy effects on development of STZ-DM, hypertension and, 155-161

see also Microalbuminuria; Proteinuria

Albuterol, effects of oral, on serum lipids and carbohydrate metabolism in men, 712-717

ALC, see Acetyl-L-carnitine in STZ-DM

- Alcohol and alcohol consumption
 and hematologic parameters in hypercholesterolemic thrombophilia, 967
 interactions of lung antioxidant defense system with Cu, dietary CHOs, and alcohol in male and female subjects, 49-56
 smoking and, 1552, 1553
see also Alcohol and alcohol consumption in IDDM; Beer; Ethanol
- Alcohol and alcohol consumption in IDDM, 269, 270
 in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
 RBC membrane phospholipid composition and, 59
- Aldose reductase inhibitor(s) (ARIs)
 sorbinil as, effects of supplementation with *myo*-inositol and, on polyphosphoinositide turnover in peripheral nerve in STZ-DM, 320-327
 tolrestat as, effects of, on nerve regeneration in STZ-DM, after crush injury, 1189-1195
- Alkaline phosphatase, cellular, effects of vitamin B₁₂ on activity of, and on proliferation of bone marrow osteoprogenitor cells and UMR106 osteoblastic cells, 1443-1446
- Alpha (α)-adrenergic hormones, role of in regulation of gluconeogenesis, 392-394
- Alpha (α) cells
 pancreatic, function of, in partially pancreatectomized subjects, as model of spontaneous NIDDM, 1360-1367
 time course of defective response of, to hypoglycemia in IDDM, 1422-1426
- 17Alpha (α)-dihydroequilin, antioxidant effects of, on lipid peroxidation, 411-414
- 5 Alpha (α)-Dihydrotestosterone (DHT), GHBP regulation by, 1521-1526
- Alpha (α)-glucosidase, L-arabinose effects on, after sucrose ingestion, 1369-1370
- Alpha (α)-glucosidase inhibitor, voglibose as, effects of, on dyslipidemia and insulin sensitivity in nondiabetic hyperinsulinemia, 731-737
- Alpha (α)-lipoprotein, *see* High-density lipoprotein(s)
- Alpha (α)-tocopherol, *see* Vitamin E
- AM (adrenomedullin), plasma, in acute asthma, 1323-1325
- Amino acids
 polymorphism of, in HSL of Japanese NIDDM subjects, 862-864
see also Plasma amino acids and specific amino acids
- Aminoguanidine, rapid reversal of neurovascular effects of STZ-DM with, 1147-1152
- Ammonia (NH₃), splenocyte, MH 7777 effects on metabolism of, 853
- Ammonium (NH₄), familial leucine-sensitive hypoglycemia with concomitant hyperammonemia, 957-960
- AMP (adenosine monophosphate)
 cyclic, *see* cAMP
 muscle protein synthesis and degradation and, 1281
 RBC, effects of xylitol on, 1357
- Amylase, L-arabinose effects on, after sucrose ingestion, 1369-1370
- Amylin, CCK, GLP-1 and, in gastric emptying, 1-3
- $\Delta 4$ An, *see* Androstenedione
- Anabolic androgenic steroids (AASs)
 effects of abuse of, on serum ubiquinone and dolichol levels, 844-847
see also specific anabolic androgenic steroids
- Androgenic steroids
 anabolic, effects of abuse of, on serum ubiquinone and dolichol levels, 844-847
 regulating GHBP, 1521-1526
see also Hyperandrogenic women and specific androgenic steroids
- Androstenedione ($\Delta 4$ An)
 hormone replacement therapy effects on, in postmenopausal subjects, 1258, 1260
see also Androstenedione in hirsute women
- Androstenedione ($\Delta 4$ An) in hirsute women
 BMD and, 516
 effects of GnRH in severely hirsute hyperandrogenic women on, 25
 in obese women, 72-75
- Anesthetized subjects
 effects of decreasing plasma FFAs by ACX on hepatic glucose metabolism in, 1409-1410
 tracer kinetics in measurement of muscle protein synthesis and degradation in, 1279-1283
- Angiotensin-converting enzyme (ACE) gene, polymorphism of, in Japanese NIDDM subjects, 218-222
- Angiotensin-converting enzyme (ACE) inhibitor(s), trandolapril as, effects of, alone or in combination with verapamil, on glucose transport in insulin-resistant skeletal muscle, 535-541
- Angiotensinogen (AGN) genes, polymorphism of, in Japanese NIDDM subjects, 218-222
- ANPs, *see* Atrial natriuretic peptides
- ANS (autonomic nervous system), HPA axis activity and its relationship to, in obese premenopausal women with VAT and SAT, effects of CRF/AVP and stress tests on, 351-356
- Anterior pituitary- and pituitary-dependent target organ function in HIV-infected men, 738-746
- Anthropometric parameters
 of adolescent boys, and autonomically mediated physiological responses to experimentally induced mental stress in IRS, 616-618
see also specific anthropometric parameters; for example: Body weight
- Antibodies (Abs), pancreatic islet cell, characteristics of subjects positive for, who progressed to IDDM, 310
- Antigen, PAI-1, relationship between hepatic and peripheral insulin resistance and, 1244-1245
- Antihypertensive therapy, *see* specific antihypertensive agents
- Antilipolytic effects
 of DZ in obesity, 334-341
see also specific antilipolytics
- Antioxidants
 antioxidant effects of 4-hydroxyestrone and 17 α -dihydroequilin on lipid peroxidation, 411-414
 lung defense system against, in male and female subjects, interacting with alcohol, Cu, and dietary CHOs, 49-56
- Antiproteinuria therapy, serum lathosterol-to-cholesterol ratio is not elevated in glomerular proteinuria and not associated with improved hyperlipidemia in response to, 723-730
- Antithrombin-III (AT-III) in hypercholesterolemic thrombophilia, 967, 968
- Aortic glycation, hormonal replacement therapy effects on, in postmenopausal subjects, 1259, 1260
- Apo(s), *see* Apolipoprotein(s)
- Apolipoprotein(s) (apos)
 metabolism of, in genetic hypercholesterolemia, 7
 size of, in IDDM and NIDDM, 1267-1272
see also specific apolipoproteins
- Apolipoprotein A (apo A) in IDDM, progression of microalbuminuria and, 1103
- Apolipoprotein A-I (apo A-I)
 and exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 798
 in FH, GH and, 1418
 in FHLB, 1297

- Apolipoprotein A-I (apo A-I) (Continued)**
 in FHTG and FDL, 1308
 in glomerular proteinuria, 726
 and HDL-C in 10-year-old obese girls, 471, 472
 in high SFA diet, 553
 in IDDM, *see* Apolipoprotein A-I in IDDM
 in NIDDM, *see* Apolipoprotein A-I in NIDDM
 of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
 palmitic and stearic acid effects on, 146
 plasma, *see* Plasma apolipoprotein A-I
 in uremia, 688
 and urinary excretion of E₂ and T, 281-283
 in visceral obesity-insulin resistance-dyslipidemic syndrome, 885, 886
 voglibose effects on, in nondiabetic hyperinsulinemia, 734
- Apolipoprotein A-I (apo A-I) in IDDM**
 intraperitoneal insulin effects on, 432
 progression of microalbuminuria and, 1103
 size of, 1268, 1269
- Apolipoprotein A-I (apo A-I) in NIDDM**
 in normotriglyceridemic NIDDM, 64, 67
 plasma, role of AT loss in exercise-induced improvement in, 1384
 size of, 1268, 1269
- Apolipoprotein A-II (apo A-II)**
 in FH, GH and, 1418
 of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- Apolipoprotein A-III (apo A-III) of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109**
- Apolipoprotein B (apo B)**
 editing RNA of, in genetic obesity, 1056-1058
 estrogen increasing LDL receptor catabolism independent of, in hyperlipidemia, 889-896
 and exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 798
 in FH, GH and, 1418
 in FHLB, 1297
 in FHTG and FDL, 1308
 GH therapy effects on, 1017
 in glomerular proteinuria, 726
 in IDDM, *see* Apolipoprotein B in IDDM
 in NIDDM, *see* Apolipoprotein B in NIDDM
 of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
 palmitic and stearic acid effects on, 146
 relation between plasma TGs, HDL-C and, to postheparin LPL activity dependent on apo E polymorphism, 261-267
 in uremia, 688
 and urinary excretion of E₂ and T, 281-283
 voglibose effects on, in nondiabetic hyperinsulinemia, 734
- Apolipoprotein B (apo B) in IDDM**
 intraperitoneal insulin effects on, 432
 as predictor of microalbuminuria progression in IDDM, 1101-1107
 size of, 1268, 1269
- Apolipoprotein B (apo B) in NIDDM**
 in normotriglyceridemic, 64, 67
 plasma, role of AT loss in exercise-induced improvement in, 1384
 size of, 1268, 1269
- Apolipoprotein B:A1 (apo B:A1) in normotriglyceridemic NIDDM, 64, 67**
- Apolipoprotein B-43.7 (apo B-43.7) in FHLB, 1296-1304**
- Apolipoprotein B-100 (apo B-100)**
 in FHLB, 1299-1302
 in high SFA diet, 553
- Apolipoprotein E (apo E)**
 in FHLB, 1297
see also Apolipoprotein E genotype; Apolipoprotein E phenotype; Apolipoprotein E polymorphism
- Apolipoprotein E (apo E) genotype in FH, GH and, 1417**
- Apolipoprotein E (apo E) phenotype, exercise effects on serum TC and serum LDL-C concentrations related to, in boys and young adults, 797-803**
- Apolipoprotein E (apo E) polymorphism**
 influence of, on postprandial Lp metabolism in normotriglyceridemic NIDDM, 63-71
 relationship between plasma TGs, HDL-C, apo B and, to postheparin LPL activity dependent on, 261-267
- Apoptosis, proximal tubular cell, induced by glucose loading, 1348-1353**
- APTT (activated partial thromboplastin time) in hypercholesterolemic thrombophilia, 967, 968**
- L-Arabinose inhibiting intestinal sucrase and suppressing glycemic response after sucrose ingestion, 1368-1374**
- Arachidonic acid in STZ-DM, effects of sorbinil and ALC on, 905**
- Arginine (ARG)**
 ACX effects on GH response to GHRH alone or combined with, in obese women, 342-346
 differential beta-cell response to glucose, glucagon and, during progression to IDDM, 306-314
 MH 7777 effects on concentrations of, 851
 L-N^G-monomethyl-, effects of, on mononuclear splenocytes and NO generation with mld-STZ, 940-946
 plasma insulin response to, in spontaneous NIDDM, 1361-1363, 1365
- Arginine-vasopressin (AVP)/corticotropin-releasing factor (CRF) test, effects of stress test and, on HPA axis activity and its relationship to AN in premenopausal obese women with SAT and VAT, 351-356**
- ARIs, *see* Aldose reductase inhibitor(s)**
- Arterial alanine, stress hormone effects on, in conscious subjects, 576**
- Arterial cortisol, intrarenal glucagon action on, 385**
- Arterial free fatty acids (FFAs)**
 hyperglycemia effects on, during ischemia, 546
 intrarenal glucagon action on, 385
- Arterial glucose**
 hepatic, in conscious subjects, glyburide effects on, 580
 intrarenal glucagon action on, 385
- Arterial insulin, intrarenal glucagon action on, 385**
- Arterial K (potassium), intrarenal glucagon action on, 385**
- Arterial lactate**
 hyperglycemia effects on, during ischemia, 546
 intrarenal glucagon action on, 385
 stress hormone effects on, in conscious subjects, 576
- Arterial Na (sodium), intrarenal glucagon action on, 385**
- Arterial plasma glucagon (G), stress hormone effects on, in conscious subjects, 573**
- Arterial plasma glucose, hyperglycemia effects on, during ischemia, 546**
- Arterial pressure, *see* Blood pressure**
- Asparagine, MH 7777 effects on concentrations of, 851**
- Aspartate, MH 7777 effects on, 851-853**
- Aspartate transaminase (AST) in beta-thalassemia major, 653**
- Asthma, acute, plasma adrenomedullin in, 1323-1325**
- AT, *see* Adipose tissue**

- Atenolol, effects of urapidil and, on plasma Fn in essential hypertension, compared, 1221-1229
- Atherogenic diet, nandrolone decanoate effects on plasma lipids and coronary arteries of females on moderately, 463-468
- Athletes, *see* Exercise
- Atmospheric pressure chemical ionization interface system, liquid chromatography-mass spectrometry with, *N*-acetylcystathionine and cyclic cystathionine sulfoxide in cystathioninuria identified with, 1312-1316
- ATP (adenosine triphosphate)
inhibition of A-4166-induced insulin and somatostatin release by K^+ channel opener sensitive to, 185-186
muscle protein synthesis and degradation and, 1281
 Na^+/K^+ , in erythrocytes of IDDM and NIDDM subjects, 927-934
RBC, xylitol effects on, 1357
in whole blood, 52
- ATPase, *see* Na^+/K^+ ATPase
- Atrial natriuretic peptides (ANPs)
circulating, circadian relationships between serum Ca, serum phosphate and, in healthy subjects, 1021-1028
circulating endothelin modulated by, 315-319
- Atropine, effects of, on CCK, 198
- AT-III (antithrombin-III) in hypercholesterolemic thrombophilia, 967, 968
- Autonomic nervous system (AN), HPA axis activity and its relationship to, in premenopausal obese women with VAT and SAT, effects of CRF/AVP and stress tests on, 351-356
- Autonomic neuropathy, plasma met-enkephalin in IDDM and NIDDM and, 1065-1068
- Autonomically mediated physiological responses to experimentally induced mental stress in adolescent boys, IRS and, 614-621
- Autophosphorylation, IR, 1475-1477
in leprechaunism, 1495
- AVP (arginine-vasopressin)/CRF (corticotropin-releasing factor) test, effects of stress test and, on HPA axis activity and its relationship to AN in premenopausal obese women with SAT and VAT, 351-356
- Awareness of hypoglycemia, IDDM with impaired, effects of acute hypoglycemia on rCBF in, 974-980
- Bacteria, digoxin-metabolizing fecal, acarbose effects on, 1182, 1183
- Bardet-Biedel syndrome (BBS), empty sellae, impaired testosterone secretion, and defective hypothalamic-pituitary growth and gonadal axes in children with, 1230-1234
- Basal glucose transport in muscle and fat cells, TNF- α effects on, 1089-1094
- BBS (Bardet-Biedel syndrome), empty sellae, impaired testosterone secretion, and defective hypothalamic-pituitary growth and gonadal axes in children with, 1230-1234
- BCM (body cell mass), FFM relation to, 992-997
- Beef tallow, effects of, on expression of insulin signal-transduction pathway intermediate gene, 1080-1088
- Beer, gastric emptying of, in Mexican-Americans and in NHWs, 1174-1178
- Beta₃ (β_3)-adrenoceptor agonist, CL316,243 as, effects of, on SNS activity, 787-791
- Beta (β) cells
FA effects on glucose-regulated function of, pancreatic islet TGs and FA oxidation effects on glucose metabolism associated with, 981-986
hepatic insulin extraction and activity of, following dexamethasone administration in healthy subjects, 486-492
in IDDM, *see* Beta cells in IDDM
- Beta (β) cells in IDDM
differential response of, to glucose, glucagon, and arginine during progression to IDDM, 306-314
insulin effects on beta-cell function in subjects at high risk for IDDM, 873-875
- Beta (β)-endorphin, responses of PRL and, to hypoglycemia in well-controlled IDDM, 1434-1440
- 17Beta (β)-estradiol (E_2) reducing postprandial HDL-C in postmenopausal women, 827-832
- Beta-hydroxybutyric acid, *see* β -Hydroxybutyric acid
- Beta (β)-lipoprotein, *see* Low-density lipoprotein(s)
- Beta₂ (β_2)-microglobulin, *see* β_2 -Microglobulin
- Beta (β)-thalassemia major, glucose intolerance in, related to insulin resistance and hepatic dysfunction, 652-657
- Bicarbonate (HCO_3^-) in Bardet-Biedel syndrome children, 1231
- Binding protein, *see* Growth hormone-binding protein; Insulin-like growth factor binding protein-1; Insulin-like growth factor binding protein-3
- Biphosphatase, fructose-1,6-, impaired regulation of hepatic, in obese NIDDM subjects, 622-626
- Biphosphate (P_2), fructose-2,6-, and regulation of hepatic FBPase in obese NIDDM subjects, 622-626
- Birth to 9 years of age, AT FAs and size and number of adipocytes from, in boys, 1395-1401
- Blood flow
hepatic portal, differential effects of pathophysiological versus physiological concentrations of plasma E and NE on KB metabolism and, 1214-1220
hyperglycemia effects on, during ischemia, 544, 545
plasma, glyburide effects on, in conscious subjects, 580
regional cerebral, effects of acute hypoglycemia on, in IDDM with impaired awareness of hypoglycemia, 974-980
- Blood glucagon, xylitol effects on, 1335
- Blood glucose
fasting, *see* Fasting blood glucose
in FHTG and FDL, omega-FA and fenofibrate effects on, 1306
in IDDM, *see* Blood glucose in IDDM
relationship between plasma insulin, total ketone levels and, in normal, DM, and DKA subjects, 693, 695
in spontaneous NIDDM, 1361-1362
in STZ-DM, *see* Blood glucose in STZ-DM
xylitol effects on, 1335
D-xylose, acarbose, and L-arabinose effects on, after sucrose ingestion, 1370-1371
- Blood glucose in IDDM
intraoperative insulin effects on, 432
in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
- Blood glucose in STZ-DM
body weight and, 321
effects of ALC replacement on, 868
- Blood lactate, and exercise with pivalic acid-induced carnitine deficiency, 1504
- Blood lactic acid, xylitol effects on, 1358
- Blood pH, effects of intrarenal glucagon action on, 385
- Blood pressure (BP)
and abdominal AT distribution, metabolic risk factors and, 1121
of adolescents with insulin resistance, 909-911
in Bardet-Biedel syndrome, 1233
in FH, GH and, 1417
in glomerular proteinuria, 725
in healthy men, *see* Blood pressure in healthy men
of hospitalized subjects, 1558, 1559
of hyperandrogenic hirsute women, GnRH therapy and, 25
of hypercholesterolemic thrombophilia patients, 967

Blood pressure (BP) (Continued)

- hyperglycemia effects on, during ischemia, 544
- and hyperinsulinemia associated with VPCs, 1250-1252
- in IDDM, *see* Blood pressure in IDDM
- and insulin effects on levels of circulating vitamin E, 999
- insulin resistance and, and insulin effects on intracellular Ca concentrations, 1403, 1405
- in IRS, 1535, 1536
- in NIDDM, *see* Blood pressure in NIDDM
- in non-obese premenopausal women of different racial origins, lipid and CHO metabolic risk markers for CHD and, 328-333
- in normal, diabetic, and DKA subjects, relationship between AT production of PGI₂, PGE₂, and 6-keto-PGF_{1α}, plasma insulin level and, 691-698
- and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
- in obesity, *see* Blood pressure in obesity
- of PWS subjects, 1515
- and relationship between hepatic and peripheral insulin resistance and PAI-1, 1244
- of young women on contraceptive steroids, 834
- see also* Hypertension

Blood pressure (BP) in healthy men

- as CV risk factor in healthy Indian and Swedish men, 640
- and ET-1 impact on basal and stimulated concentrations of LH, FSH, TSH, GH, ACTH, and PRL with and without nifedipine pretreatment, 659

Blood pressure (BP) in IDDM

- in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
- progression of microalbuminuria and, 1102

Blood pressure (BP) in NIDDM

- and ACE and AGN gene polymorphism, 220, 221
- cardiovascular risk factors and RBC membrane SLC and, 962, 963
- with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783

Blood pressure (BP) in obesity

- cardiovascular risk factors and, in adolescent obesity, 235
- pioglitazone effects on, 521

Blood pyruvic acid, xylitol effects on, 1358**Blood urea nitrogen (BUN) in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion in, 783****Blood volume, finger, mental stress and, in adolescent boys with IRS, 614-621****BMD (bone mineral density), current, and menstrual history of young hirsute women, 515-518****BMI, *see* Body mass and body mass index****BNPs (brain natriuretic peptides) during ergometric exercise by hypertensive patients with LVH, 1326-1329****Body cell mass (BCM), FFM relation to, 992-997****Body composition**

- CT-determined, in healthy Indian and Swedish men in relation to CV risk factors, 634-644
- effects of, on DHEA in morbidly obese adolescents, 1011-1015
- effects of cardiovascular fitness, Lp(a) and, on fibrinolysis, 1427-1433
- energy expenditure and, 996-997
- exercise effects on, *see* Body composition, exercise effects on
- four-compartment model of, in aging women, 43-48
- of GH-deficient men, effects of GH therapy on, 364
- hormone replacement therapy effects on, in postmenopausal subjects, 1258-1259

Body composition (Continued)

- oral albuterol effects on, 714-716
- see also* Adipose tissue; Body weight; Fat-free mass; Muscle

Body composition, exercise effects on

- in older men, effects of GH administration on, during resistance exercise, 256
- resistance and aerobic exercise effects on metabolism and body composition following diet-induced weight loss, 179-183

Body fat, *see* Adipose tissue**Body K (potassium), *see* Total body K****Body mass and body mass index (BMI)**

- and abdominal AT distribution, metabolic risk factors and, 1120, 1121
 - of aging women, 44
 - of Bardet-Biedel syndrome children, 1232, 1233
 - of CAD patients, 1377, 1379, 1380
 - of CHD subjects, *see* Body mass and body mass index, CHD and
 - of diabetic subjects, *see* Body mass and body mass index of diabetic subjects
 - exercise and, *see* Body mass and body mass index, exercise and
 - fibrinolytic potential, 1429
 - full- or reduced-fat diet effects on, 1005, 1009
 - of GH-deficient men, 363, 371
 - glucose and, *see* Body mass and body mass index, glucose and
 - of healthy Indian and Swedish men, 637, 641
 - of hirsute women, *see* Body mass and body mass index of hirsute women
 - of hospitalized subject, 1558-1560
 - of hypercholesterolemic subjects, *see* Body mass and body mass index of hypercholesterolemic subjects
 - and hyperinsulinemia associated with VPCs, 1250-1252
 - of hypertensive subjects, urapidil effects on plasma F_n and, 1222
 - of IDDM subjects, *see* Body mass and body mass index of IDDM subjects
 - and impaired glucose tolerance, 504
 - insulin effects and, *see* Body mass and body mass index, insulin and
 - and intramuscular TG content, 949
 - of IRS subjects, 1535
 - of Laron syndrome subjects, 1264
 - of multiple trauma subjects, 451
 - of NIDDM subjects, *see* Body mass and body mass index of NIDDM subjects
 - and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
 - of obese subjects, *see* Body mass and body mass index of obese subjects
 - oral albuterol effects on, 715
 - and palmitic and stearic acid effects on serum lipids, Lps, and plasma CETP, 144
 - of pubertal lean boys, urate changes and, 204
 - of PWS subjects, 1515, 1516
 - and relationship between growth rate, GHBP, and GH, 425, 426
 - and relationship between hyperinsulinemia and plasma PL SFAs, 224
 - and relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity, 263
 - of smokers, 1552
 - of β -thalassemia major subjects, 653
 - and urinary excretion of T and E₂, 281
 - voglibose effects on, in nondiabetic hyperinsulinemia, 734
- Body mass and body mass index (BMI), CHD and**
- and CHO metabolic risk markers for CHD in non-obese premenopausal women, 329

- Body mass and body mass index (BMI), exercise and diet effects on glucose homeostasis and serum lipid levels, 436
- endogenous opioid response to exercise in IDDM, 139
- exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 798
- and relationship between glucose metabolism and thermogenesis in obese NIDDM women with and without prior exercise, 748
- and substrate kinetics during prolonged exercise, 418
- Body mass and body mass index (BMI), glucose and effects of parasympathetic denervation of liver and pancreas on glucose kinetics, 988
- glucose processing during FSIGT, 599
- Body mass and body mass index (BMI), insulin and and insulin effects on HGP, 83
- and insulin effects on levels of circulating vitamin E, 999
- interstitial insulin and BMI in non-obese subjects, 952
- Body mass and body mass index (BMI), insulin resistance and and insulin effects on intracellular Ca concentrations, 1403, 1405
- relationship between hepatic and peripheral insulin resistance and PAI-1, 1244
- relationship between weight gain and insulin resistance in non-diabetic Creole, Indian, and Chinese Mauritians, 629-632
- Body mass and body mass index (BMI) of diabetic subjects sorbitol and glutathione in erythrocytes and, 612
- see also* Body mass and body mass index of IDDM subjects; Body mass and body mass index of NIDDM subjects
- Body mass and body mass index (BMI) of hirsute women of hyperandrogenic hirsute women, GnRH therapy and, 25
- of obese hirsute women, 72
- Body mass and body mass index (BMI) of hypercholesterolemic subjects
- with FH, GH and, 1417
- with thrombophilia, 967
- Body mass and body mass index (BMI) of IDDM subjects
- apo, Lp, and LDL size and, 1268, 1269
- autonomic neuropathy and, 1066
- and endogenous opioid response to exercise, 139
- with hypoglycemia, 975
- intraperitoneal insulin effects on, 432
- progression of microalbuminuria and, 1102
- of well-controlled IDDM, 1435
- WHR and, 269, 270
- Body mass and body mass index (BMI) of NIDDM subjects
- and ACE and AGN gene polymorphism, 220
- with amino acid polymorphism in HSL, 262, 864
- apo, Lp, and LDL size and, 1268, 1269
- autonomic neuropathy and, 1066
- cardiovascular risk factors and RBC membrane SLC and, 962
- and effects of vanadyl sulfate on CHO and lipid metabolism, 1131
- and gliclazide effects on HGP suppression, 1197
- of NIDDM adolescents with insulin resistance, 909-911
- normotriglyceridemic, 64
- oral glucose and CCK release and, 197
- and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877, 879
- of postmenopausal women, 828
- progression of microalbuminuria and, 1102
- and relationship between glucose metabolism and thermogenesis in obese NIDDM women with and without prior exercise, 748
- with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
- of untreated NIDDM subjects, 493
- Body mass and body mass index (BMI) of NIDDM subjects (*Continued*)
- in visceral obesity-insulin resistance-dyslipidemic syndrome, 885
- of young women on contraceptive steroids, 834
- Body mass and body mass index (BMI) of obese subjects
- cardiovascular risk factors and, 235
- interstitial insulin and, 952
- of morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1012
- of obese women, *see* Body mass and body mass index of obese women
- of pubertal obese boys, urate changes and, 204
- visceral adipose tissue and, 379
- Body mass and body mass index (BMI) of obese women
- of hirsute obese women, 72
- with NIDDM, relationship between glucose metabolism and thermogenesis with and without prior exercise, 748
- of premenopausal women with VAT and SAT, HPA axis activity and, 352
- Body wasting (cachexia), T-cell leukemia-induced, 645-651
- Body water, total, in of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- Body weight (BW)
- of adolescents with insulin resistance, 909, 910; *see also* Adolescent obesity
- of aging women, 44, 45
- and body composition of healthy Indian and Swedish men, 635
- of cancer patients, response to radiation therapy and, 768
- of CHD subjects, 670
- and circadian relationships between serum Ca, serum phosphate, and circulating ANPs, 1022
- and CL316,243 effects on SNS activity, 788
- exercise and, *see* Body weight, exercise and
- of FHLB subjects, 1297
- of FHTG and FDL subjects, 1308
- and fibrinolytic potential, 1429
- gain in, *see* Weight gain
- of GH-deficient men, effects of GH therapy on, 364
- glucose and, *see* Body weight, glucose and
- hormone replacement therapy effects on, in postmenopausal subjects, 1259, 1260
- of hyperandrogenic hirsute women, GnRH therapy and, 25
- of hypercholesterolemic thrombophilia subjects, 967
- of hypertensive subjects with LVH, 1327
- of hypoglycemic patients, 1423
- of IDDM subjects, *see* Body weight of IDDM subjects
- and insulin effects on HGP, 83
- and insulin resistance with PCT, 122
- of Laron syndrome subjects, 1264
- loss in, *see* Weight loss
- of malnourished subjects, 1274
- of MH 7777 transplant recipients, 850
- of MIDD subjects, 529, 530
- of multiple trauma subjects, 451
- nandrolone decanoate effects on, 465
- of nephrotic syndrome subjects, 823
- of NIDDM subjects, *see* Body weight of NIDDM subjects
- of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
- and palmitic and stearic acid effects on serum lipids, Lps, and plasma CETP, 144
- pioglitazone effects on, 521-523

- Body weight (BW)** (*Continued*)
 recovery of, by identical twins after 5 years of overfeeding, 1042-1050
 and regional FFA kinetics, 663
 and relationship between hepatic and peripheral insulin resistance and PAI-1, 1244
 of smokers, 924
 starvation effects on, 971
 of STZ-DM subjects, *see* Body weight of STZ-DM subjects
 and urinary excretion of pyridinium cross-links of collagen, 511
see also Non-obese subjects; Obesity
- Body weight (BW), exercise and**
 and diet effects on glucose homeostasis and serum lipid levels, 436, 440
 and endogenous opioid response to exercise, 139
 in older men, effects of GH administration and resistance exercise on, 256
 and strenuous exercise effects on glycerol kinetics, 358
- Body weight (BW), glucose and**
 and effects of parasympathetic denervation of liver and pancreas on glucose kinetics, 988
 and glucose processing during FSIGT, 599
 trandolapril and verapamil effects on glucose transport in insulin-resistant skeletal muscle and, 536, 537
- Body weight (BW) of IDDM subjects**
 blood cell membrane phospholipid composition and, 59
 and endogenous opioid response to exercise, 139
 loss of, intensive IDDM therapy and, 1510
- Body weight (BW) of NIDDM subjects**
 abdominal AT and, 1290
 blood cell membrane phospholipid composition and, 59
 and effects of vanadyl sulfate on CHO and lipid metabolism, 1131
 with macrovascular disease, 134
 and role of AT loss in exercise-induced plasma lipid improvement in NIDDM, 1384
 of spontaneous NIDDM subjects, 1361-1362
 of untreated NIDDM subjects, 493
- Body weight (BW) of STZ-DM subjects**
 blood glucose and, 321
 effects of ALC replacement on, 867, 868
 exercise effects on mitochondrial function, 811
 and gonadectomy effects on development of hypertension, albuminuria, and STZ-DM, 159
 and tolrestat effects on nerve regeneration following nerve crush injury, 1190, 1191
 troglitazone effects on, 1169
- Bone, decreased cortical, and increased cancellous, in children with PHPT, 76-81**
- Bone density, and influence of age, sex and adiposity on metabolically active component of FFM, 993**
- Bone marrow osteoprogenitor cells, effects of vitamin B₁₂ on alkaline phosphatase activity in, and proliferation of, 1443-1446**
- Bone mineral density (BMD), current, and menstrual history of young hirsute women, 515-518**
- Boys**
 apo E phenotype in, varying effects of exercise on serum TC and LDL-C concentrations related to, 797-803
 from birth to nine years of age, AT FAs and size and number of adipocytes in, 1395-1401
see also Adolescent boys
- BP, *see* Blood pressure**
- Brain**
 O₂ consumption in heart, hepatomesenteric bed and, of young and elderly men, sympathetic nervous activity with, 1487-1492
see also Cerebral blood flow and entries beginning with term: Brain
- Brain natriuretic peptides (BNPs) during ergometric exercise by hypertensive patients with LVH, 1326-1329**
- Brain tyrosine, IV γ -glutamyl tyrosine effects on catecholamine concentrations and, in normal subjects, 126-132**
- Breath hydrogen, acarbose effects on, 1182-1183**
- 1-Bromobenzo(b)furan-2-ylsulfonyl hydantoin (M16209), effects of, on insulin sensitivity, 1095-1100**
- Buffering capacity of platelets in NIDDM, cardiovascular risk factors and RBC membrane SCL and, 962, 963**
- BUN (blood urea nitrogen)**
 of hypertensive subjects with LVH, 1327
 in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
- Burn (thermal injury), effects of, on glucose utilization by skin, wound, small intestine, and skeletal muscle, 1161-1167**
- BW, *see* Body weight**
- C, *see* Cholesterol**
- Ca (calcium)**
 increased erythrocyte Na influx and uptake of, in hyperthyroidism, erythrocyte membrane phospholipid level and, 707-711
 intracellular, insulin effects on concentrations of, 1402-1407
 serum, circadian relationships between circulating ANPs, serum phosphate and, in healthy subjects, 1021-1028
- Ca²⁺ (calcium), intracellular, role of, in regulation of gluconeogenesis, 389-403**
- Ca (calcium) channel blocker(s)**
 effects of, on A-4166-induced insulin and somatostatin release, 185, 186
 verapamil as, effects of trandolapril alone or in combination with, on glucose transport in insulin-resistant skeletal muscle, 535-541
- Cachexia (body wasting), T-cell leukemia-induced, 645-651**
- CAD (coronary artery disease), HDL relation to metabolic parameters and severity of, 1375-1382**
- Calcium, *see* Ca**
- cAMP (cyclic adenosine monophosphate)**
 intrarenal glucagon action on urinary excretion of, 385
 and PKC responses to GH secretion in acromegalic pituitary adenomas, 206-210
 role of, in regulation of gluconeogenesis, 390-392
- Campesterol in sitosterolemia, 675**
- Cancellous bone in children with PHPT, 76-81**
- Cancer, metabolic response to radiation therapy of, 767-773**
- Carbachol, GLP-1 stimulating insulin secretion but not phosphoinositide hydrolysis from pancreatic islets desensitized by exposure to high glucose or, 273-278**
- N-Carbamyl glutamate, effects of, in familial leucine-sensitive hypoglycemia, 959**
- Carbohydrates (CHOs)**
 in CHD, *see* Carbohydrates in CHD
 hormone replacement therapy effects on cardiovascular risk factors and metabolism of, in postmenopausal subjects, 1254-1262
 interactions of lung antioxidant defense system with alcohol, Cu and, in male and female subjects, 49-56
 in NIDDM, vanadyl sulfate effects on metabolism of, 1130-1136
 oral albuterol effects on serum lipids and metabolism of, in men, 712-717
 pancreas transplantation effects on metabolism of, 857, 859
 PP thermogenesis and substrate utilization after ingestion of different, 1235-1242
 prolonged exercise and, *see* Prolonged exercise, CHOs and

Carbohydrates (CHOs) in CHD

CHO and lipid metabolic risk markers for CHD and blood pressure in non-obese premenopausal women of different racial origins, 328-333

effects of high- versus low-glycemic CHOs on insulin and glucose response in CHD, 669-672

hormone replacement therapy effects on CHO metabolism and risk factors for CHD in postmenopausal subjects, 1254-1262

Carbon dioxide, *see* CO₂; [¹⁴CO₂]

Cardiac function, troglitazone effects on, 1169-1170

Cardioprotective effects of troglitazone in STZ-DM, 1168-1173

Cardiovascular (CV) fitness, effects of body composition, Lp(a) and, on fibrinolysis, 1427-1433

Cardiovascular (CV) risk factor(s)

CT-determined body composition of healthy Indian and Swedish men in relation to, 634-644

hormone replacement therapy effects on CHO metabolism and, in postmenopausal subjects, 1254-1262

insulin resistance in adolescents as, 908-914

multiple, obesity and, 235-240

in NIDDM, RBC membrane SLC and, 961-965

Cardiovascular (CV) system

of premenopausal obese women with VAT and SAT, response of, to CRF/AVP and stress tests, 353

see also Heart entries beginning with terms: Cardiovascular, Macrovascular, Myocardial, Vascular specific arteries and veins

Carnitine

pivalic acid-induced deficiency in, exercise and, 1501-1507

see also Acetyl-L-carnitine in STZ-DM

Carnitine palmytoyltransferase-1 (CPT-1), OFS effects on, 1548

Catalase, activity of, in lungs, 53

Catecholamines

IV γ -glutamyl tyrosine effects on brain tyrosine and concentrations of, in normal subjects, 126-132

role of, in regulation of gluconeogenesis, 390-392, 394-395

see also Dopamine; Epinephrine; Norepinephrine

CBF (cerebral blood flow), regional, effects of acute hypoglycemia on, in IDDM with impaired hypoglycemia awareness, 974-980

CCK, *see* Cholecystokinin

Cell differentiation, and GH effects on newly differentiated adipocytes, 34-42

Cell proliferation, vitamin B₁₂ effects on cellular alkaline phosphatase activity and, of bone marrow stromal osteoprogenitors and UMR106 osteoblastic cells, 1443-1446

Cellular alkaline phosphatase, effects of vitamin B₁₂ on activity of, in bone marrow osteoprogenitor cells and UMR106 osteoblastic cells, 1443-1446

Central obesity, hyperuricemia, hypertriglyceridemia, DM, and hypertension associated with fasting insulin, overall and, 699-706

Cephalic-phase insulin response (CPIR) in obese nondiabetic subjects, 168-173

Cerebral blood flow (CBF), regional, effects of acute hypoglycemia on, in IDDM with impaired hypoglycemia awareness, 974-980

CETP, *see* Cholesteryl ester transfer protein

CHD, *see* Coronary heart disease

Chemistry of peripheral nerves in STZ-DM, effects of ALC and sorbinil on structure, function and, 902-907

Chemoattractant protein-1 mRNA (messenger ribonucleic acid), monocyte, LPC stimulating expression and production of, in vascular endothelial cells, 559-564

Children

with BBS, empty sella, impaired testosterone secretion, and defective hypothalamic-pituitary growth and gonadal axes in, 1230-1234

dicarboxylic aciduria due to MCTs differentiated from that due to abnormal FA oxidation and fasting in, 162-167

with PHPT, decreased cortical and increased cancellous bone in, 76-81

see also Boys; Girl(s); Infancy

Chinese Mauritians, nondiabetic, relationship of insulin resistance to weight gain in, 627-633

Chinese men, urinary excretion of T and E₂ by, serum Lp concentrations and, 279-284

Chloride (Cl), intrarenal glucagon action on urinary excretion of, 385

CHO(s), *see* Carbohydrates

Cholecystokinin (CCK)

GLP-1, amylin and, in gastric emptying, 1-3

release of, stimulated by oral glucose in normal adult subjects and in NIDDM, 196-202

Cholesterol in sitosterolemia, 675

Cholesterol (C)

in Bardet-Biedel syndrome children, 1231, 1233

as CV risk factor in healthy Indian and Swedish men, 640

and diet effects on glucose homeostasis and serum lipid levels in exercise, 436

in HF diet-induced hyperglycemia and obesity, 1542

in hypercholesterolemic thrombophilia, 967

in IDDM, *see* Cholesterol in IDDM

in NIDDM, *see* Cholesterol in NIDDM

OA inhibiting utilization of, for T synthesis in Leydig cells, 293-299

plasma, DZ effects on, 336

and relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity, 263; *see also* High-density lipoprotein-cholesterol

serum lathosterol-to-cholesterol ratio as index of synthesis of, is not elevated in glomerular proteinuria and not associated with improved hyperlipidemia in response to antiproteinuria therapy, 723-730

total, *see* Total cholesterol

in uremia, 688, 689

and urinary excretion of E₂ and T, 281, 282

see also Hypercholesterolemia; Intermediate-density lipoprotein-cholesterol; Low-density lipoprotein-cholesterol; Very-low-density lipoprotein-cholesterol

Cholesterol (C) in IDDM

blood cell membrane phospholipid composition and, 59

progression of microalbuminuria and, 1103, 1104

Cholesterol (C) in NIDDM

blood cell membrane PL composition and, 59

with macrovascular disease, 134

in normotriglyceridemic NIDDM, 64, 67

plasma, role of AT loss in exercise-induced improvement in, 1384

Cholesteryl ester

HDL-, metabolism of, in genetic hypercholesterolemia, 7

in normolipidemic men, 1110, 1114-1115

see also Cholesteryl ester transfer protein

Cholesteryl ester transfer protein (CETP)

in CAD, 1377-1378, 1380

pancreas transplantation effects on, 859

plasma, effects of palmitic and stearic acids on serum lipids, Lps and, in young women, 143-149

Cholesteryl esterase, OA inhibiting utilization of, for T synthesis in Leydig cells, 293-299

- Cholestyramine, effects of lovastatin and, on plasma sterol levels in homozygous sitosterolemic girl and her sitosterolemic heterozygous father, 673-679
- Choline
intrapertoneal insulin effects on LpB-PLs containing, in IDDM, 430-434
LPC stimulating MCP-1 mRNA expression and production in vascular endothelial cells, 559-564
- Chronic gastrointestinal (GI) disorders, essential fatty acid deficiency in, 12-23
- cICAM-1 (circulating intercellular adhesion molecule-1), level of HbA_{1c}, MDA and, in NIDDM, oxidative stress and, 498-501
- Cigarette smoking, *see* Smoking
- Circadian relationships between circulating ANPs, serum phosphate, and serum Ca in healthy subjects, 1021-1028
- Circulating atrial natriuretic peptides (ANPs), circadian relationships between serum Ca, serum phosphate and, in healthy subjects, 1021-1028
- Circulating dehydroepiandrosterone sulfate (DHEAS), effects of moderate protein increase on insulin secretion and, 1483-1486
- Circulating endothelin (ET), ANPs modulating, 315-319
- Circulating intercellular adhesion molecule-1 (cICAM-1), level of HbA_{1c}, MDA and, in NIDDM, oxidative stress and, 498-501
- Circulating vitamin E, insulin effects on levels of, 998-1003
- Citrate, PRL regulating oxidation of, in prostate epithelial cells, 442-449
- Citrulline, plasma, effects of *N*-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959
- Cl (chloride), intrarenal glucagon action on urinary excretion of, 385
- Clinical implications of albuterol therapy, 716
- Clinical presentation
of Bardet-Biedel syndrome, 1231
see also specific conditions
- CL316,243, effects of, on SNS activity, 787-791
- CMAPs (compound muscle action potentials), tolrestat effects on, following nerve crush injury in STZ-DM, 1189-1195
- CO₂ (carbon dioxide), glucose oxidation to, in adipocytes, effects of Mg deficiency on, 839-840
- [¹⁴CO₂] (carbon dioxide), splenocyte, MH 7777 effects on metabolism of, 853
- Coenzyme A (CoA), malonyl, in obese salt-sensitive subjects, pioglitazone effects on, 519-525
- Collagen, urinary excretion of pyridinium cross-links of, in infancy, 510-514
- Colonic pH, acarbose effects on, 1179-1187
- Colony-stimulating factor-1 (CSF-1), macrophage response to, in hyperglycemia, 1125-1129
- Compliance with oral albuterol therapy, 713
- Compound muscle action potentials (CMAPs), tolrestat effects on, following nerve crush injury in STZ-DM, 1189-1195
- Computed tomography (CT), body composition of healthy Indian and Swedish men determined by, and relation to CV risk factors, 634-644
- Connecting peptides, *see* C-peptides
- Conscious subjects, 571-586
effects of decreasing plasma FFAs by ACX on hepatic glucose metabolism in, 1409
glyburide effects on secretion, tissue uptake, and action of insulin in conscious subjects, 579-586
role of cortisol in metabolic response to stress hormone in, 571-578
- Constant specific activity (SA) technique, isotope dilution technique versus, in estimation of insulin effects on HGP, 82-91
- Contraceptive steroids, effects of proinsulin and insulin on plasma PAI-1 and t-PA in young women on, 833-838
- Copper (Cu), interactions of lung antioxidant defense system with alcohol, dietary CHOs and, in male and female subjects, 49-56
- Coronary arteries, nandrolone decanoate effects on plasma lipids and, in female subjects on moderately atherogenic diet, 463-468
- Coronary artery disease (CAD), HDL relation to metabolic parameters and severity of, 1375-1382
- Coronary heart disease (CHD)
and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 876, 877, 879
see also Carbohydrates in CHD
- Cortical bone, decreased, in children with PHPT, 76-81
- Corticotropin (adrenocorticotropin; ACTH)
effects of CRF/AVP and stress tests on, in premenopausal obese women with VAT and SAT, 351-356
ET-1 impact on basal and stimulated concentrations of, in men with and without nifedipine pretreatment, 658-661
serum, in HIV-infected men, 741
see also entries beginning with term: Corticotropin
- Corticotropin-like peptides (ACTH-LPs), pancreatic islet-derived, paracrine action of, on regulation of insulin release, 565-570
- Corticotropin-releasing factor (CRF)
CRF/AVP test, effects of stress test and, on HPA axis activity and its relationship to AN in premenopausal obese women with SAT and VAT, 351-356
plasma ACTH level in men before and after stimulation with, nifedipine treatment and, 659
- Cortisol
arterial, intrarenal glucagon action on, 385
in Bardet-Biedel syndrome children, 1232, 1233
effects of CRF/AVP and stress tests on, in premenopausal obese women with VAT and SAT, 351-356
in multiple trauma, 453
plasma, protein effects on levels of, 1485
role of, in metabolic response to stress hormone in conscious subjects, 571-578
in SCI women, 719, 720
serum, *see* Serum cortisol
in stress hormone, *see* Stress hormone
- C-peptides (connecting peptides)
in Bardet-Biedel syndrome children, 1231, 1233
and diet effects on glucose homeostasis and serum lipid levels in exercise, 436
in familial leucine-sensitive hypoglycemia, glucose effects on, 958
fasting, in β -thalassemia major, 656
GH effects on, *see* C-peptides, GH effects on
in IRS, 1535, 1536
in normotriglyceridemic NIDDM, 64, 67
pancreas transplantation effects on, 857
PCT and, 122, 123
plasma, *see* Plasma C-peptides
urinary excretion of, in subjects at high risk for IDDM, 873-875
- C-peptides (connecting peptides), GH effects on
effects of GH administration and resistance exercise in older men, 257
in GH-deficient men, 366
- CPIR (cephalic-phase insulin response) in obese nondiabetic subjects, 168-173
- CPT-1 (carnitine palmytoyltransferase-1), OFS effects on, 1548
- Creatinine (Cr)
in Bardet-Biedel syndrome children, 1231
in FHTG and FDL, omega-FA and fenofibrate effects on, 1306

- Creatinine (Cr) (*Continued*)
 in hospitalized subjects, 1558-1560
 in IDDM, progression of microalbuminuria and, 1102
 in nephrotic syndrome, 823
 in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion in, 783
 pancreas transplantation effects on, 857
see also Serum creatinine; Urinary excretion, creatinine
- Creole Mauritians, nondiabetic, relationship of insulin resistance to weight gain in, 627-633
- CRF, *see* Corticotropin-releasing factor
- Crush injury, tolrestat effects on nerve regeneration in STZ-DM after, 1189-1195
- CSF-1 (colony-stimulating factor-1), macrophage response to, in hyperglycemia, 1125-1129
- CT (computed tomography), body composition of healthy Indian and Swedish men determined by, relation to CV risk factors and, 634-644
- Cu (copper), interactions of lung antioxidant defense system with alcohol, dietary CHOs and, in male and female subjects, 49-56
- Cutaneous glycation, hormonal replacement therapy effects on, in postmenopausal subjects, 1259, 1260
- CV system, *see* Cardiovascular system
- Cyclic adenosine monophosphate, *see* cAMP
- Cyclic cystathionine sulfoxide, N-acetylcyclic cystathionine and, in cystathioninuria, LC/APCI-MS in identification of, 1312-1316
- Cystathioninuria, N-acetylcyclic cystathionine and cyclic cystathionine sulfoxide identification with LC/APCI-MS in, 1312-1316
- Cytokines
 pentoxifylline and indomethacin effects on production of, in healthy subjects, 1461
see also specific cytokines
- DAG, *see* Diacylglycerol; 1,2-Diacylglycerol
- Dairy products
 relative effects of high SFA levels in meat, tropical oils and, on serum Lps and degradation of LDLs by mononuclear cells in men, 550-558
 VLDLs as poor substrates for milk LPL, 686-690
- Deafferentation, medial basal hypothalamic, effects of, on EtOH-induced PRL release, 1331-1332
- Deafness, maternally inherited diabetes and, insulin resistance associated with, 526-531
- Decanoate, metabolism of, 165-166
- Decarboxylase, ornithine, activity of, in jejunal mucosa after feeding, lingual factors in, 1284-1287
- Defense system, lung antioxidant, of male and female subjects, interactions of, with alcohol, Cu, and dietary CHOs, 49-56
- Dehydroepiandrosterone (DHEA)
 in morbidly obese adolescents, effects of weight, body composition, lipids, and insulin resistance on, 1011-1015
see also Dehydroepiandrosterone in hirsute women
- Dehydroepiandrosterone (DHEA) in hirsute women
 BMD and, 516
 GnRH effects on DHEA in severely hirsute hyperandrogenic women, 25
 in obese hirsute women, 72-75
- Dehydroepiandrosterone sulfate (DHEAS)
 effects of moderate protein increase on insulin secretion and, 1483-1486
 hormone replacement therapy effects on, in postmenopausal subjects, 1258, 1260
- Delayed gastric emptying, GLP-1, amylin, CCK and, 1-3
- Denaturing gradient gel electrophoresis (DGGE), IR gene mutations analysis with, in leprechaunism, 1496
- Denervation, parasympathetic liver and pancreas, effects of, on glucose kinetics, 987-991
- Density, *see* Bone density; Bone mineral density
- Deoxyribonucleic acid, *see* DNA
- Deuterated water ($^2\text{H}_2\text{O}$), measurement of plasma C and plasma FA synthesis with, number of incorporated deuterium atoms determined with, 817-821
- Deuterium atoms, number of incorporated, determined with $^2\text{H}_2\text{O}$ measurement of plasma C and plasma FA synthesis, 817-821
- Development, *see* Growth and development
- Dexamethasone (DEX)
 hepatic insulin extraction and beta cell activity following administration of, in healthy subjects, 486-492
 inhibition of FFA oxidation and reversal of skeletal muscle glucose transport impairment induced by, 92-100
- DGGE (denaturing gradient gel electrophoresis), IR gene mutations analysis with, in leprechaunism, 1496
- DHAP (dihydroxyacetone phosphate), effects of xylitol on and, 1357
- DHEA, *see* Dehydroepiandrosterone
- DHEAS, *see* Dehydroepiandrosterone sulfate
- DHT (5 α -dihydrotestosterone), GHBP regulation by, 1521-1526
- Diabetes mellitus (DM), 691-706
 hyperuricemia, hypertriglyceridemia, hypertension and, associated with fasting insulin and central and overall obesity, 699-706
 relationship between AT production of PGI_2 , PGE_2 , and 6-keto- $\text{PGF}_{1\alpha}$, plasma insulin level, and BP in DKA, normal adult subjects, and subjects with, 691-698
 relationship between erythrocyte concentrations of glutathione and sorbitol in, 611-613
see also Diabetic ketoacidosis; Diabetic syndrome; Insulin-dependent diabetes mellitus; Maternally inherited diabetes and deafness; Non-insulin-dependent diabetes mellitus; Streptozotocin-induced diabetes mellitus
- Diabetic ketoacidosis (DKA), relationship between AT production of PGI_2 , PGE_2 , and 6-keto- $\text{PGF}_{1\alpha}$, plasma insulin level, and BP in DM, normal adult subjects, and in subjects with, 691-698
- Diabetic syndrome, L-NMMA effects on insulin secretion in, 940-946
- Diacylglycerol (DAG), fecal, acarbose effects on, 1182, 1183
- 1,2-Diacylglycerol (1,2-DAG), insulin effects on myocardial, 774-781
- Diazoxide (DZ), antilipolytic effects of, in obesity, 334-341
- Dicarboxylic aciduria due to MCTs differentiated from that due to abnormal FA oxidation and fasting in children, 162-167
- Diet
 influence of, on glucose homeostasis and serum lipid levels in exercise, 435-441
 moderately atherogenic, nandrolone decanoate effects on plasma lipids and coronary arteries of female subjects on, 463-468
see also Energy intake; Fasting; Food intake; Malnutrition; Nutritional status; Overfeeding; Starvation; Supplementation; Total parenteral nutrition; Weight loss, diet-induced
- entries beginning with terms: Dietary, Postabsorptive, Postprandial specific food groups, substances, and nutrients
- Diet-induced weight loss, *see* Weight loss, diet-induced
- Dietary carbohydrates, *see* Carbohydrates
- Dietary fat
 effects of CHOs and supplementation with, on CHO metabolism during prolonged exercise, 915-921

Dietary fat (*Continued*)

- exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults and, 798, 801
- hydrogenated, effects of, on C synthesis and LDL oxidation in moderate hypercholesterolemia, 241-247
- intake of, in glomerular proteinuria, 725
- see also Fatty acids; Full-fat diet; High-fat diet; High-fat, high-sucrose diet; Low-fat diet and specific dietary fats
- Dietary protein, *see* Protein
- Digoxin-metabolizing bacteria, fecal, acarbose effects on, 1182, 1183
- 17 α (alpha)-Dihydroequilin, antioxidant effects of, on lipid peroxidation, 411-414
- 5 α (alpha)-Dihydrotestosterone (DHT), GHBP regulation by, 1521-1526
- Dihydroxyacetone phosphate (DHAP), effects of xylitol on and, 1357
- Dipeptidyl peptidase IV (DPIV)-negative subjects, enteroinsular axis in, 1335-1341
- Diphosphate, adenosine, muscle protein synthesis and degradation and, 1281
- 2,3-Diphosphoglyceric acid (2,3-DPG) in whole blood, 52
- Disease states
 - serum uric acid concentrations in hospitalized subjects according to concurrent, 1559
 - see also Morbidity and specific conditions
- DKA (diabetic ketoacidosis), relationship between AT production of PGI₂, PGE₂, and 6-keto-PGF_{1 α} , in DM, normal adult subjects, and subjects with, 691-698
- DM, *see* Diabetes mellitus
- DNA (deoxyribonucleic acid)
 - glucose loading inducing fragmentation of proximal tubular cell, 1348-1353
 - of insulin-, glucagon-, and somatostatin-secreting cells, IGF-I and IGF-II regulation of, 762, 763
 - synthesis of, in leprechaunism, 1495-1496
- Dolichol, serum, effects of anabolic androgenic steroid abuse on serum ubiquinone and, 844-847
- Dominant negative effect of kinase-defective IR on IGF-I-stimulated signaling in fibroblasts, 1474-1482
- Dopamine, effects of, on EtOH-induced PRL release, 1331
- Dose
 - AAS, 845
 - EtOH, and effects on PRL release, 1331
 - mld-STZ, L-NMMA effects on mononuclear splenocytes and NO generation with, 940-946
- 2,3-DPG (2,3-diphosphoglyceric acid) in whole blood, 52
- DPIV (dipeptidyl peptidase IV)-negative subjects, enteroinsular axis in, 1335-1341
- Dysbetalipoproteinemia, familial, effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FTG and, 1305-1311
- Dyslipidemia
 - voglibose effects on insulin sensitivity and, in nondiabetic hyperinsulinemia, 731-737
 - see also Dyslipidemic syndrome; Hyperlipidemia
- Dyslipidemic syndrome, plasma HDL-C as correlate of visceral obesity-insulin resistance-, in men, 882-888
- DZ (diazoxide), antilipolytic effects of, in obesity, 334-341
- E, *see* Epinephrine
- E2, *see* Estradiol
- Education level
 - of IDDM subjects, WHR and, 269, 270
 - of IRS subjects, 1535

EE, *see* Energy expenditure

- EFAs (essential fatty acids), deficiency in, in chronic GI disorder, 12-23
- EGF (epidermal growth factor) receptor, reduced phosphorylation of, by MIS, 190-195
- Elderly subjects
 - ³¹P magnetic resonance spectroscopy of nutritional status and effects of inflammatory state on liver of, 1059-1061
 - see also Aging; Older men
- Electrophoresis, denaturing gradient gel, IR gene mutations analysis with, in leprechaunism, 1496
- Empty sellae, impaired testosterone secretion, defective hypothalamic-pituitary growth and gonadal axes and, in Bardet-Biedel syndrome children, 1230-1234
- Endogenous opioids, response of, to exercise in IDDM, 137-142
- β (beta)-Endorphin, responses of PRL and, to hypoglycemia in well-controlled IDDM, 1434-1440
- Endothelial cells, vascular, LPC stimulating expression and production of MCP-1 mRNA in, 559-564
- Endothelin (ET), circulating, ANPs modulating, 315-319
- Endothelin-1 (ET-1), impact of, on basal and stimulated concentrations of LH, FSH, TSH, GH, ACTH, and PRL in men with and without nifedipine pretreatment, 658-661
- Endotoxemia, effects of, on polyamine metabolism in mucosa of small intestine, 28-33
- Energy expenditure (EE)
 - body composition and, 996-997
 - CHO ingestion effects on, 1237-1238
 - effects of full-fat or reduced-fat diet on substrate oxidation and, in non-obese subjects, 1004-1010
 - relationship between glucose metabolism and, in obese NIDDM women with and without prior exercise, 747-752
 - resting, impact of low- versus high-nicotine cigarette smoking on, 923-926
- Energy intake
 - and exercise effects on concentrations serum TC and LDL-C related to apo E phenotype in boys and young adults, 798, 801
 - with high SFA diet, 551
 - by malnourished subjects, 1274, 1275
 - see also Diet
- Enteroinsular axis in DPIV-negative subjects, 1335-1341
- Epidermal growth factor (EGF) receptor, reduced phosphorylation of, by MIS, 190-195
- Epinephrine (E)
 - lipolysis induced by, in normal, DM, and DKA subjects, 6-keto-PGF_{1 α} and PGE₂ production by AT and, 695
 - in multiple trauma, 453
 - plasma, *see* Plasma epinephrine
 - in stress hormone, *see* Stress hormone
- Epithelial cells, prostate, PRL regulating citrate oxidation and m-aconitase in, 442-449
- Ergometric exercise by hypertensive patients with LVH, BNPs during, 1326-1329
- Erythrocyte(s) (red blood cell; RBC)
 - in DM, relationship between concentrations of glutathione and sorbitol in, 611-613
 - in IDDM and NIDDM, Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP concentration in, 927-934
 - increased Na influx and Ca uptake by, in hyperthyroidism, erythrocyte membrane phospholipid level and, 707-711
 - see also entries beginning with term: Erythrocyte
- Erythrocyte (red blood cell; RBC) adenine nucleotides, effects of xylitol on, 1356, 1357
- Erythrocyte (red blood cell; RBC) folate in NIDDM with macrovascular disease, 134

- Erythrocyte (red blood cell; RBC) membrane(s)
 in IDDM and NIDDM, changes in PL composition of, 57-62
 role of phospholipid level of, in increased erythrocyte Na influx and Ca uptake in hyperthyroidism, 707-711
see also Erythrocyte membrane Na^+/K^+ ATPase; Erythrocyte membrane sodium-lithium countertransport
- Erythrocyte (red blood cell; RBC) membrane Na^+/K^+ (sodium/potassium) ATPase (adenosine triphosphatase), low activity of, in Northeast Thais, 804-810
- Erythrocyte (red blood cell; RBC) membrane sodium-lithium countertransport (SLC)
 and cardiovascular risk factors in NIDDM, 961-965
 kinetics of, in nonnephropathic IDDM twins, 1203-1207
- Essential fatty acids (EFAs), deficiency in, in chronic gastrointestinal disorders, 12-23
- Essential hypertension, urapidil effects on plasma Fn in, 1221-1229
- Esterase, cholesteryl, OA inhibiting utilization of, for T synthesis in Leydig cells, 293-299
- Estradiol (E_2)
 and gonadectomy effects on development of hypertension, albuminuria, and STZ-DM, 159
 nandrolone decanoate effects on concentration of, in female subjects, 465
 in SCI women, 719, 720
 urinary excretion of T and, by Chinese men, serum Lp concentrations and, 279-284
see also Estradiol in hirsute women
- Estradiol (E_2) in hirsute women
 BMD and, 516
 effects of GnRH in severely hirsute hyperandrogenic women on, 25
 in obese women, 72-75
- 17 β (beta)-Estradiol (E_2), postprandial HDL-C in postmenopausal women reduced by, 827-832
- Estrogen increasing apo B-independent-catabolism of LDL-C in hyperlipidemia, 889-896
- ET (endothelin), circulating, ANPs modulating, 315-319
- ET-1 (endothelin-1), impact of, on basal and stimulated concentrations of LH, FSH, TSH, GH, ACTH, and PRL in men with and without nifedipine pretreatment, 658-661
- Ethanol (EtOH)
 action of, inducing PRL release, 1330-1334
see also Alcohol and alcohol consumption
- Ethanolamine phospholipids (PLs) in nephrotic syndrome, 823, 824
- Ethanolamine plasmalogens in nephrotic syndrome, 823-824
- Ethnicity, *see* Race and ethnicity
- EtOH, *see* Ethanol
- Etomoxir, effects of, on pancreatic islet TGs and FA oxidation, 983-984
- Excretion, *see* Fecal excretion; Urinary excretion
- Exercise
 aerobic, effects of, on body composition and metabolism following diet-induced weight loss, 179-183
 diet effects on glucose homeostasis and serum lipid levels with, 435-441
 effects of, on mitochondrial function in skeletal muscle of normal and STZ-DM subjects, 810-816
 effects of, on serum TC and LDL-C concentrations related to apo E phenotype in boys and young adults, 797-803
 ergometric, by hypertensive patients with LVH, BNPs during, 1326-1329
 and hyperinsulinemia, 1554
 in IDDM, *see* Exercise in IDDM
 in NIDDM, *see* Exercise in NIDDM
 and palvolic acid-induced carnitine deficiency, 1501-1507
- Exercise (*Continued*)
 prolonged, *see* Prolonged exercise, CHOs and
 and relationship between psychosocial stress and IRS, 1535
 resistance, *see* Resistance exercise
 theophylline effects on substrate metabolism during, 1153-1160
- Exercise in IDDM
 endogenous opioid response to, 137-142
 strenuous, effects of, on glycerol kinetics, 357-361
 WHR and, 269, 270
- Exercise in NIDDM
 inducing improvement in plasma lipids, role of AT loss in, 1383-1395
 long-term exercise effects on prevention of NIDDM, 475-480
 relationship between glucose metabolism and thermogenesis in obese NIDDM women with and without prior exercise, 747-752
- FA(s), *see* Fatty acids
- n-3-FA(s) (omega-fatty acids), *see* ω -Fatty acids
- Factor VIIc in hypercholesterolemic thrombophilia, 967, 968
- Factor VIIIC in hypercholesterolemic thrombophilia, 967, 968
- Familial aggregation of visceral fat level, 378-382
- Familial dysbetalipoproteinemia (FDL), effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FHTG and, 1305-1311
- Familial hypercholesterolemia (FH)
 GH effects on LDL-C and Lp(a) in, 1415-1421
 sitosterolemia and, 673-679
- Familial hypertriglyceridemia (FHTG), effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FDL and, 1305-1311
- Familial hypobetalipoproteinemia (FHLB), apo B-43.7 in, 1296-1304
- Familial leucine-sensitive hypoglycemia with concomitant hyperammonemia, 957-960
- Family history of NIDDM with amino acid polymorphism in HSL, 862
- FAS (fatty acid synthase), OFS effects on, 1548
- Fasting
 dicarboxylic aciduria due to MCTs differentiated from that due to abnormal FA oxidation and, in children, 162-167
 PP glucose, PP insulin, and PP lipids and, in IDDM, 1036
see also Starvation and entries beginning with term: Fasting
- Fasting blood glucose
 in diabetic subjects, glutathione and sorbitol concentrations and, 612
 in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
 in obese and lean subjects, interstitial insulin and, 952
- Fasting C-peptides (connecting peptides) in β -thalassemia major, 656
- Fasting glucagon (G) in obese IGT subjects, 505
- Fasting glucose
 and abdominal AT distribution, metabolic risk factors and, 1121
 blood, *see* Fasting blood glucose
 in CHD, *see* Fasting glucose in CHD
 and CV risk factors in healthy Indian and Swedish men, 641
 in hospitalized subjects, 1558, 1559
 in IRS, 1535
 in MIDD, 529, 530
 oral albuterol effects on, 714
 plasma, *see* Fasting plasma glucose
 and relationship between weight gain and insulin resistance in nondiabetic subjects, 629, 630
 smoking and, 1553

- Fasting glucose in CHD
 effects of high- versus low-glycemic CHOs on, 671
 and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330
- Fasting high-density lipoprotein(s) (HDLs), composition of, in IDDM, 1036-1037
- Fasting high-density lipoprotein-cholesterol (HDL-C), 17 β -estradiol effects on, in postmenopausal women, 829-830
- Fasting insulin
 and abdominal AT distribution, metabolic risk factors and, 1121 in CHD, *see* Fasting insulin in CHD, CHOs and
 and CV risk factors in healthy Indian and Swedish men, 641
 hyperuricemia, hypertriglyceridemia, DM, and hypertension associated with central and overall obesity and, 699-706
 and intramuscular TG content, 949
 in MIDD, 529, 530
 in NIDDM, cardiovascular risk factors and RBC membrane SLC and, 963
 in obese IGT subjects, 505
 oral albuterol effects on, 714
 plasma, *see* Fasting plasma insulin
 and relationship between weight gain and insulin resistance in nondiabetic subjects, 629-631
 serum, in β -thalassemia major, 655
 smoking and, 1553, 1554
- Fasting insulin in CHD, CHOs and
 high- versus low-glycemic CHO effects, 671
 and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330
- Fasting nonesterified fatty acids (FAs), and intramuscular TG content, 949
- Fasting plasma cholesterol (C), overfeeding effects on, 1046
- Fasting plasma C-peptide (connecting peptide), CPIR in obese nondiabetic subjects and, 171
- Fasting plasma fatty acids (FAs) in normolipidemic men, 1110
- Fasting plasma free fatty acids (FFAs), and hyperinsulinemia associated with VPCs, 1250-1252
- Fasting plasma glucose (FPG)
 and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
 hepatic and peripheral insulin resistance and, 1244
 and hyperinsulinemia associated with VPCs, 1250, 1252
 and insulin effects on levels of circulating vitamin E, 999
 in NIDDM, *see* Fasting plasma glucose in NIDDM
 in older men, effects of GH administration and resistance exercise on, 257
 overfeeding effects on, 1046
 in β -thalassemia major, 655
 VS effects on, 1132
- Fasting plasma glucose (FPG) in NIDDM
 cardiovascular risk factors and RBC membrane SLC and, 962
 and relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 748
- Fasting plasma high-density lipoprotein-cholesterol (HDL-C), and hyperinsulinemia associated with VPCs, 1250-1252
- Fasting plasma insulin
 CPIR in obese nondiabetic subjects and, 171, 172
 and effects of parasympathetic denervation of liver and pancreas on glucose kinetics, 988
 hepatic and peripheral insulin resistance and, 1244
 in hyperinsulinemia associated with VPCs, 1248-1253
 in older men, effects of GH administration and resistance exercise on, 257
 overfeeding effects on, 1046
- Fasting plasma insulin (*Continued*)
 and relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 748
- Fasting plasma K (potassium), and hyperinsulinemia associated with VPCs, 1250-1252
- Fasting plasma low-density lipoprotein-cholesterol (LDL-C), and hyperinsulinemia associated with VPCs, 1250-1252
- Fasting plasma triglycerides (TGs)
 and hyperinsulinemia associated with VPCs, 1250-1252
 overfeeding effects on, 1046
- Fasting proinsulin in β -thalassemia major, 656
- Fasting serum high-density lipoprotein-cholesterol (HDL-C) in NIDDM with amino acid polymorphism in HSL, 864
- Fasting serum insulin in β -thalassemia major, 655
- Fasting serum total cholesterol (TC) in NIDDM with amino acid polymorphism in HSL, 864
- Fasting serum triglycerides (TGs)
 and intramuscular TG content, 949
 in NIDDM with amino acid polymorphism in HSL, 864
- Fat, *see* Adipose tissue; Dietary fat; Fat-free mass and entries
beginning with element: Lip-
- Fat-free mass (FFM)
 age, adiposity, and sex influence on metabolically active component of, 992-997
 and diet-induced weight loss, *see* Fat-free mass, and diet-induced weight loss
 exercise and, *see* Fat-free mass, exercise and
 and glucose processing during FSIGT, 599
 in NIDDM, 1384
 of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
 oral albuterol effects on, 715
 of PWS subjects, 1516
- Fat-free mass (FFM), and diet-induced weight loss, 176
 resistance and aerobic exercise effects on FFM following weight loss, 181
- Fat-free mass (FFM), exercise and
 in older men, effects of GH administration and resistance exercise on, 256
 resistance and aerobic exercise effects on FFM following, 181
 and substrate kinetics during prolonged exercise, 418
- Father, heterozygous sitosterolemic, and his homozygous sitosterolemic girl, cholestyramine and lovastatin effects on plasma sterol levels in, 673-679
- Fatty acid(s) (FAs)
 AT, size and number of adipocytes and, from birth to 9 years of age in boys, 1395-1401
 dicarboxylic aciduria due to MCTs, fasting, and abnormal oxidation of, in children, compared, 162-167
 effects of, on glucose-regulated beta-cell function, pancreatic islet TGs and FA oxidation effects on glucose metabolism associated with, 981-986
 effects of, on hyperglycemia and obesity, 1540, 1541
 essential, deficiency in, in chronic GI disorders, 12-23
 glucose and insulin effects on, 775-776
 long-chain, metabolism of, 166
 short-chain, acarbose effects on, 1179-1187
see also ω -Fatty acids; Free fatty acids; Monounsaturated fatty acids; Nonesterified fatty acids; Oxidation, FA; Plasma fatty acids; Polyunsaturated fatty acids; Saturated fatty acids
- ω (omega)-Fatty acid(s) (FAs)
 effects of fenofibrate and, on lipids and hemorrheological parameters in FDL and FHTG, 1305-1311

- ω (omega)-Fatty acid(s) (FAs) (*Continued*)
 parenteral, effects of, on leukocyte membrane FA composition and leukotriene-synthesizing capacity in postoperative trauma, 1208-1213
 Fatty acid synthase (FAS), OFS effects on, 1548
 FBG (finger blood volume), mental stress and, in adolescent boys with IRS, 614-621
 FDL (familial dysbetalipoproteinemia), effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FHTG and, 1305-1311
 Fecal excretion of acidic and neutral sterols in sitosterolemia, 675
 Fecal nutrients, acarbose effects on, 1179-1187
 Female subjects
 interactions of lung antioxidant defense system with alcohol, Cu, and dietary CHOs in, 49-56
 on moderately atherogenic diet, nandrolone decanoate effects on plasma lipids and coronary arteries in, 463-468
 see also Girl(s); Women
 Fenofibrate, effects of omega-FAs and, on lipids and hemorrheological parameters in FDL and FHTG, 1305-1311
 Ferritin in β -thalassemia major, 653
 FFAs, *see* Free fatty acids
 FFM, *see* Fat-free mass
 FH, *see* Familial hypercholesterolemia
 FHLB (familial hypobetalipoproteinemia), apo B-43.7 in, 1296-1304
 FHTG (familial hypertriglyceridemia), effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FDL and, 1305-1311
 Fibrinogen (Fn)
 in FHTG and FDL, 1309
 in hypercholesterolemic thrombophilia, 967, 968
 in IDDM and NIDDM, blood cell membrane phospholipid composition and, 59
 nonenzymatic glycation of, impairing adhesive and proliferative properties of vascular smooth muscle cells, 285-292
 plasma, in essential hypertension, urapidil effects of, 1221-1229
 Fibrinolysis, cardiovascular fitness, body composition, and Lp(a) affecting, 1427-1433
 Fibroblasts
 dominant negative effects of kinase-defective IRs on IGF-I-stimulated signaling in, 1474-1482
 insulin binding to, in leprechaunism, 1494-1495
 Finger blood volume (FBG), mental stress and, in adolescent boys with IRS, 614-621
 Fish oil, *see* ω -Fatty acids
 Fitness
 cardiovascular, body composition, Lp(a) and, affecting fibrinolytic potential, 1427-1433
 physical, *see* Exercise
 5-year overfeeding, body weight recovery by identical twins after, 1042-1050
 Fn, *see* Fibrinogen
 Folate, erythrocyte, in NIDDM with macrovascular disease, 134
 Follicle-stimulating hormone (FSH)
 in Bardet-Biedel syndrome children, 1232, 1233
 17 β -estradiol effects on, in postmenopausal women, 828
 ET-1 impact on basal and stimulated concentrations of, in men with and without nifedipine pretreatment, 658-661
 in SCI women, 718-722
 see also Follicle-stimulating hormone in hirsute women
 Follicle-stimulating hormone (FSH) in hirsute women
 BMD and, 516
 GnRH effects on FSH in severely hirsute hyperandrogenic women, 25
 in obese hirsute women, 72-75
 Food intake
 and CL316,243 effects on SNS activity, 788
 ODC activity in jejunal mucosa after, lingual factors in, 1284-1287
 see also Diet
 Four-compartment model of body composition in aging women, 43-48
 F6P (fructose-6-phosphate), and glucose cycling by hepatocytes, 104
 FPG, *see* Fasting plasma glucose
 Free estradiol (E_2), and urinary excretion of T and E_2 , 282
 Free fatty acids (FFAs)
 in CHD, effects of high- versus low-glycemic CHOs on, 671
 hyperglycemia effects on, during ischemia, 545-546
 intrarenal glucagon action on, 385, 386
 in IRH, 608
 kinetics of regional, contributing to postabsorptive FFA flux in men and women, 662-666
 in normolipidemic men, 1110
 OFS effects on, 1548
 oxidation of, and reversal of skeletal muscle glucose transport impaired by dexamethasone, 92-100
 plasma, *see* Plasma free fatty acids
 serum, *see* Serum free fatty acids
 Free testosterone (T)
 and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
 and urinary excretion of T and E_2 , 282
 Free thyroxine (T_4) in Bardet-Biedel syndrome children, 1232, 1233
 Free triiodothyronine (T_3) in hyperthyroidism, 709
 Frequently sampled intravenous glucose tolerance test (FSIGT)
 dexamethasone effects on, 486-492
 glucose processing during, 598-605
 in MIDD, 528-529
 Fructosamine
 in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
 pancreas transplantation effects on, 857
 Fructose, oligofructose effects on impact of, on hepatic TAG metabolism, 1547-1550
 Fructose-1,6-bisphosphatase [Fru(1,6)Pase], impaired regulation of hepatic, in obese NIDDM subjects, 622-626
 Fructose-2,6-bisphosphate [Fru(2,6)P₂], and regulation of hepatic FBPAse in obese NIDDM subjects, 622-626
 Fructose-hypertensive subjects, effects of, on vascular reactivity, 1053-1055
 Fructose-6-phosphate [Fru(6)P], and glucose cycling by hepatocytes, 104
 FSH, *see* Follicle-stimulating hormone
 FSIGT, *see* Frequently sampled intravenous glucose tolerance test
 L-Fucose, and reduced Na⁺/K⁺ ATPase and MNCV, 229-234
 Full-fat diet, effects of, on EE and substrate oxidation in non-obese subjects, 1004-1010
 Functional active receptors for IGF-I and IGF-II on insulin-, glucagon-, and somatostatin-producing cells, 759-766
 Functional liver mass, plasma flow and, in acromegaly before and after long-term octreotide therapy, 109-113
 G, *see* Glucagon
 GA3P (glyceraldehyde-3-phosphate), effects of xylitol on and, 1357
 Gamma (γ)-glutamyl transpeptidase in FHTG and FDL, omega-FA and fenofibrate effects on, 1306
 Gamma (γ)-glutamyl tyrosine, effects of, on brain tyrosine and catecholamine concentrations in normal subjects, 126-132
 Gastric emptying
 of beer in Mexican-Americans and in NHWs, 1174-1178
 delayed, GLP-1, amylin, CCK and, 1-3

- Gastrointestinal (GI) system
 chronic disorders of, essential fatty acid deficiency in, 12-23
 and GI discomfort with CHO and dietary fat ingestion during prolonged exercise, 919, 920
see also Intestine and entries beginning with terms: Gastric, Intestinal
- Gel electrophoresis, denaturing gradient, IR gene mutation analysis with, in leprechaunism, 1496
- Gene(s)
 of insulin signal-transduction pathway intermediates, effects of beef tallow and safflower oil diets on expression of, 1080-1088
 IR, severe resistance to insulin and IGF-I due to two mutations of tyrosine kinase domain of, in leprechaunism, 1493-1500
 LDL receptor, GH normalizing expression of, in hypothyroidism, 680-686
see also Apolipoprotein E polymorphism; DNA; Japanese non-insulin-dependent diabetes mellitus subjects, polymorphism in; Genotype; mRNA and entries beginning with terms: Familial, Genetic, Heterozygous, Homozygous, Inherited
- Genetic factors, 1288-1304
 in FHLB, 1296-1304
 in NIDDM, 1288-1295
- Genetic hypercholesterolemia, plasma Lp metabolism in, 4-11
- Genetic obesity, editing of hepatic apo B RNA in, 1056-1058
- Genotype, apo E, in FH, GH and, 1417
- GF, *see* Growth factor
- GFR, *see* Glomerular filtration rate
- GH, *see* Growth hormone
- GHBP, *see* Growth hormone-binding protein
- GHRH, *see* Growth hormone-releasing hormone
- GI system, *see* Gastrointestinal system
- Girl(s)
 adolescent, *see* Adolescent girls
 homozygous sitosterolemic, cholestyramine and lovastatin effects on plasma sterol levels in, and her sitosterolemic heterozygous father, 673-679
 obesity and HDL-C in 10-year-old, race and, 469-474; *see also* Adolescent obesity
- Gliclazide, effects of, on HGP
 in conscious subjects, 583
 potentiation of suppression of HGP production in NIDDM as, 1196-1202
- Globulin, *see* β_2 -Microglobulin; Sex hormone-binding globulin
- Glomerular filtration rate (GFR)
 glucose, mannitol, and saline effects on, 1349
 intrarenal glucagon action on, 385
- Glomerular proteinuria, serum lathosterol-to-cholesterol ratio is not elevated in, and not associated with improved hyperlipidemia in response to antiproteinuria therapy, 723-730
- GLP, *see* entries beginning with terms: Glucagon-like peptide
- Glucagon (G; hyperglycemic factor; hyperglycemic-glycogenolytic factor)
 action of intrarenal, on renal metabolism, renal hemodynamics, and renal Na handling, 383-388
 effects of, on xylitol-induced increase in plasma and urinary excretion of purine bases, 1354-1359
 functional active receptors for IGF-I and IGF-II on cells producing, 759-766
 glucose and, *see* Glucagon, glucose and
 in IRH, 608
 moderate decline in SA and level of, 589
 in multiple trauma, 453
 in obese IGT subjects, 505
 PCT and, 122
- Glucagon (G; hyperglycemic factor; hyperglycemic-glycogenolytic factor) (*Continued*)
 plasma, *see* Plasma glucagon
 plasma E and NE effects on concentrations of, 1217
 RA receptor transcripts and effects of RA and ROH on secretion of, in pancreatic islets and glucagon-secreting cell lines, 300-305
 role of, in regulation of gluconeogenesis, 390-395
 in spontaneous NIDDM, 1362, 1363
 in stress hormone, *see* Stress hormone
see also entries beginning with terms: Glucagon-like
- Glucagon (G), glucose and
 differential beta cell response to glucose, arginine, and glucagon during progression to IDDM, 306-314
 hyperglycemia and alteration of glucagon ability to increase hepatic glucose production and activate glycogen phosphorylase in perfused liver, 481-485
 intrarenal glucagon action on glucose, 385, 386
 protein kinase A-induced glucagon synthesis and secretion inhibited by glucose, 347-350
- Glucagon-like peptide-1 (GLP-1)
 glucose dependency on glyburide and, 404-409
 stimulation of insulin secretion by, but not phosphoinositide hydrolysis from pancreatic islets desensitized by exposure to high glucose or carbachol, 273-278
- Glucagon-like peptide-1 (GLP-1) NH₂, CCK, amylin and, in gastric emptying, 1-3
- Glucocorticoids
 role of, in regulation of gluconeogenesis, 397
see also specific glucocorticoids
- Gluconeogenesis (GNG)
 hepatic, *see* Gluconeogenesis, hepatic
 role of intracellular Ca²⁺ in regulation of, 389-403
 total, from glycerol with [2-¹³]glycerol, measurement of, 897-901
- Gluconeogenesis (GNG), hepatic
 effects of decreasing plasma FFAs by ACX on, 1409-1410
 stress hormone effects on, in conscious subjects, 573-574
- Glucose
 in adipocytes, Mg deficiency and metabolism of, 838-843
 in adolescent obesity, 235
 in Bardet-Biedel syndrome children, 1231, 1233
 blood, *see* Blood glucose
 in CAD, 1377-1379
 and CV risk factors in healthy Indian and Swedish men, 640
 cycling of, by hepatocytes, effects of thyroid status on, 101-108
 DNA fragmentation in proximal tubular cells induced by glucose loading, 1348-1353
 effects of, on fatty acids and heart performance, 775-776
 FA effects on beta-cell function regulated by, pancreatic islet TGs and FA oxidation effects on glucose metabolism associated with, 981-986
 fasting, *see* Fasting glucose
 gastric emptying rate effects on, 1176
 GH and, *see* Glucose, GH and
 GLP-1 stimulating insulin secretion but not phosphoinositide hydrolysis from pancreatic islets desensitized by exposure to carbachol or high, 273-278
 glucagon and, *see* Glucagon, glucose and
 glyburide and, *see* Glucose, glyburide and
 hepatic, *see* Hepatic glucose
 high- versus low-glycemic CHO effects on response of, in CHD, 669-672
 in hypercholesterolemic thrombophilia, 967
 in hypertension, *see* Glucose in hypertension
 in IDDM, *see* Glucose in IDDM

Glucose (*Continued*)

- insulin resistance and, 1405
 - insulin secretion induced by, RA status and, 250
 - in IRS, 1535, 1536
 - kinetics of, *see* Kinetics, glucose
 - and lipid and CHO metabolic risk markers for CHD and BP in non-obese premenopausal women, 330
 - MIDA of, with [2-¹³]glycerol, 897-901
 - M16209 effects on, 1097, 1098
 - in NIDDM, *see* Glucose in NIDDM
 - oral, CCK release stimulated by, in normal adult subjects, 196-202
 - pancreas transplantation effects on, 857
 - plasma, *see* Plasma glucose
 - plasma E and NE effects on, 1217, 1218
 - portal versus peripheral delivery of insulin in handling of portally delivered, 150-154
 - posttranscriptional effects of, on proteoglycan mRNA expression in mesangial cells, 1136-1145
 - in PWS, 1514-1520
 - and relationship between plasma PL SFAs and, 224
 - serum, L-NMMA effects on, 941-943
 - skeletal muscle, *see* Skeletal muscle glucose
 - splenocyte, MH 7777 effects on metabolism of, 851-853
 - stress hormone effects on, in conscious subjects, 573
 - thermal injury effects on utilization of, by skin, wound, small intestine, and skeletal muscle, 1161-1167
 - VS effects on, 1132-1133
 - see also* Glucose homeostasis; Glucose intolerance; Glucose-6-phosphate; Glucose tolerance; Glucose transport; Hyperglycemia; Hypoglycemia and entries beginning with elements: Gluc-, Glyc-
- Glucose, GH and
- effects of GH therapy for GH-deficient men on homeostasis of, 362-369
 - GH effects on glucose uptake, 39
 - GH response to glucose in hyperthyroidism, effects of early changes in plasma glucagon on, 1029-1033
- Glucose, glyburide and
- glucose dependency on GLP-1 and glyburide, 404-409
 - glyburide effects on hepatic vein and hepatic artery glucose, 580
- Glucose homeostasis
- diet effects on serum lipids and, in exercise, 435-443
 - effects of GH therapy for GH-deficient men on, 362-369
 - oral albuterol effects on, 715-716
- Glucose in hypertension
- and changes in activity and phosphorylation of Na⁺/H⁺ exchanger in vascular myocytes in spontaneous hypertension, 114-119
 - urinary glucose excretion and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
- Glucose in IDDM
- blood cell membrane phospholipid composition and, 59
 - differential beta cell response to glucose, glucagon, and arginine during progression to IDDM, 306-314
 - octreotide effects on metabolism of, 211-217
 - PP glucose, effects of fasting on, 1036
- Glucose intolerance
- in β -thalassemia major related to insulin resistance and hepatic dysfunction, 652-657
 - see also* Glucose tolerance
- Glucose in NIDDM
- blood cell membrane phospholipid composition and, 59
 - CCK release stimulated by oral, 196-202

Glucose in NIDDM (*Continued*)

- effects of starvation in untreated NIDDM on plasma glucose concentrations, 492-497
 - in normotriglyceridemic NIDDM, 64, 67
 - relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 747-752
 - role of AT loss in exercise-induced plasma lipid improvement and, 1384
- Glucose-6-phosphate (G6P), and glucose cycling by hepatocytes, 103-104
- Glucose tolerance
- exercise effects on, 477
 - in hyperthyroidism, 1029-1033
 - impaired, obese women with, dysfunctional pancreatic islets in, 501-510
 - see also* Glucose intolerance; Intravenous glucose tolerance test; Oral glucose tolerance test
- Glucose transport
- basal and insulin-stimulated, in muscle and fat cells, TNF- α effects on, 1089-1094
 - dexamethasone-induced impaired skeletal muscle, not reversed by inhibition of FFA oxidation, 92-100
 - DZ effects on, 336
 - effects of trandolapril alone or in combination with verapamil on, in insulin-resistant skeletal muscle, 535-541
 - see also* GLUT1; GLUT3
- α (alpha)-Glucosidase, L-arabinose effects on, after sucrose ingestion, 1369-1370
- α (alpha)-Glucosidase inhibitor, voglibose as, effects of, on dyslipidemia and insulin sensitivity in nondiabetic hyperinsulinemia, 731-737
- GLUT1, paranodal expression of, in peripheral nerve, 1466-1473
- GLUT3, paranodal expression of, in peripheral nerve, 1466-1473
- Glutamate
- MH 7777 effects on, 851-853
 - monosodium, ratio of urinary excretion of C-peptide to, in subjects at high risk for IDDM, 874, 875
- Glutamine
- MH 7777 effects on, 851-853
 - plasma, effects of N-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959
- γ (gamma)-Glutamyl transpeptidase in FHTG and FDL, omega-FA and fenofibrate effects on, 1306
- γ (gamma)-Glutamyl tyrosine, effects of, on brain tyrosine and catecholamine concentrations in normal subjects, 126-132
- Glutathione, relationship between concentrations of sorbitol and, in erythrocytes of diabetic subjects, 611-613
- Glyburide
- effects of, on secretion, tissue uptake, and action of insulin in conscious subjects, 579-586
 - glucose and, *see* Glucose, glyburide and
- Glycation
- aortic and cutaneous, hormonal replacement therapy effects on, in postmenopausal subjects, 1259, 1260
 - nonenzymatic fibronectin, impairing adhesive and proliferative properties of vascular smooth muscle cells, 285-292
- Glycemic carbohydrates (CHOs), high- and low-, effects of, on insulin and glucose response in CHD, 669-672
- Glycemic response
- L-arabinose inhibiting intestinal sucrase and suppressing, after sucrose ingestion, 1368-1374
 - see also* specific substances
- Glyceraldehyde-3-phosphate (GA3P), effects of xylitol on and, 1357

- Glycerides
total, in hyperlipidemia, 892
see also Triglycerides
- Glycerol
gluconeogenesis from, and turnover of, 897-901
in IRH, 608
octreotide effects on, in IDDM, 214
plasma, see Plasma glycerol
strenuous exercise effects on kinetics of, 357-361
see also Diacylglycerol; 1,2-Diacylglycerol; [2-¹³]Glycerol; Glycerol-3-phosphate; Triacylglycerol
- [2-¹³]Glycerol, GNG from glycerol with, 897-901
- Glycerol-3-phosphate, OFS effects on, 1548
- Glycerophospholipids in nephrotic syndrome, 822-826
- Glycine, MH 7777 effects on concentrations of, 851
- Glycogen
hepatic, stress hormone effects on, in conscious subjects, 574
in leprechaunism, 1495-1496
skeletal muscle, see Skeletal muscle glycogen
VS effects on, 1133
see also Glycogen phosphorylase; Glycogen synthase
- Glycogen phosphorylase, hyperglycemia and alteration of glucagon ability to increase hepatic glucose production and activate, in perfused liver, 481-485
- Glycogen synthase (GS)
octreotide effects on, in IDDM, 214
skeletal muscle, during FSIGT, 602
- Glycogenolysis, effects of decreasing plasma FFAs by ACX on, 1409-1410
- Glycosylated Hb (hemoglobin) in NIDDM
glucalase effects on HGP suppression and, 1197
in untreated NIDDM, 493, 493
- GNG, see Gluconeogenesis
- GnRH (gonadotropin-releasing hormone), long-acting, in severely hyperandrogenic hirsute women, 25-27
- Gonadal axes, defective hypothalamic-pituitary growth and defective, with empty sellae and impaired testosterone secretion in Bardet-Biedel syndrome children, 1230-1234
- Gonadectomy, effects of, on development of STZ-DM, hypertension, and albuminuria, 155-161
- Gonadotropin-releasing hormone (GnRH), long-acting, in severely hirsute hyperandrogenic women, 25-27
- G6P (glucose-6-phosphate), and glucose cycling by hepatocytes, 103-104
- Growth and development
androgen effects on, 1523
defective hypothalamic-pituitary, and defective gonadal axes with empty sellae and impaired testosterone secretion in Bardet-Biedel syndrome children, 1230-1234
relationship between plasma GH, GHBP and rate of, 424-429
- Growth factor (GF)
reduced phosphorylation of EGF receptor by MIS, 190-195
see also entries specific growth factors
- Growth hormone (GH)
ACX and, see Acipimox, effects of, on GH response to GHRH in obesity
in acromegaly, 109-113
in Bardet-Biedel syndrome children, 1232
effects of, on adipocyte precursor cells and newly differentiated adipocytes, 34-42
ET-1 impact on basal and stimulated concentrations of, in men with and without nifedipine pretreatment, 658-661
plasma, see Plasma growth hormone
response of, to T and DHT administration, 1523
serum, see Serum growth hormone
- Growth hormone (GH) (*Continued*)
see also Growth hormone, effects of therapy with; Growth hormone, secretion of
- Growth hormone (GH), effects of therapy with
on LDL-C and Lp(a) in FH, 1415-1421
in multiple trauma subjects on TPN, effects of, on hyperglycemia, 450-456
and normalization of LDL receptor gene expression in hypothyroidism, 680-686
on serum lipids and Lps, increased peripheral conversion of T₄ to T₃ and, 1016-1020
see also Growth hormone, effects of therapy with, for men
- Growth hormone (GH), effects of therapy with, for men
in older men, effects of resistance exercise and, on insulin sensitivity and secretion during IVGTT, 254-260
see also Growth hormone, effects of therapy of GH-deficient men with
- Growth hormone (GH), effects of therapy of GH-deficient men with, 362-377
effects of, on serum Lps, LPL, and HL activity, 370-377
on GH, IGFBP-1, IGFBP-3, and glucose homeostasis, 362-369
on IGF-I, see Insulin-like growth factor-I, GH therapy and
- Growth hormone (GH), secretion of
cAMP and PKC responses to, in acromegalic pituitary adenomas, 206-210
effects of early changes in plasma glucagon on, in response to glucose in hyperthyroidism, 1029-1033
- Growth hormone-binding protein (GHBP)
androgenic steroids regulating, 1521-1526
relationship between plasma GH, growth rate and, 424-429
- Growth hormone-releasing hormone (GHRH)
plasma GH level in men before and after stimulation with GHRH following nifedipine and ET-1 treatment, 659
see also Acipimox, effects of, on GH response to GHRH in obesity
- GS, see Glycogen synthase
- Hb, see Glycosylated Hb in NIDDM and entries beginning with acronym: HbA
- HbA₁ (hemoglobin A₁)
in IDDM, see HbA₁ in IDDM
in NIDDM, 1384
- HbA₁ (hemoglobin A₁) in IDDM
with hypoglycemia, 975
progression of microalbuminuria and, 1102
- HbA_{1c} (hemoglobin A_{1c})
and diet effects on glucose homeostasis and serum lipid levels in exercise, 436
and glucose processing during FSIGT, 599
in IDDM, see HbA_{1c} in IDDM
in NIDDM, see HbA_{1c} in NIDDM
in STZ-DM, effects of sorbinil and ALC on, 905
urapidil effects on, in hypertensive subjects, 1226
voglibose effects on, in nondiabetic hyperinsulinemia, 734
- HbA_{1c} (hemoglobin A_{1c}) in IDDM
autonomic neuropathy and, 1067
blood cell membrane phospholipid composition and, 59
intraperitoneal insulin effects on, 432
Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP RBC concentration in IDDM and, 928
in nonnephropathic IDDM, RBC membrane sodium-lithium countertransport kinetics and, 1204
in well-controlled IDDM, 1435
- HbA_{1c} (hemoglobin A_{1c}) in NIDDM
and ACE and AGN gene polymorphism, 220-221
in adult-onset IDDM subjects, 1510

- HbA_{1c}** (hemoglobin A_{1c}) in NIDDM (*Continued*)
with amino acid polymorphism in HSL, 864
autonomic neuropathy and, 1067
blood cell membrane phospholipid composition and, 59
level of cICAM-1, MDA and, and oxidative stress, 498-501
with macrovascular disease, 134
Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP erythrocyte concentration in NIDDM and, 928
in normotriglyceridemic NIDDM, 64, 67
oral glucose and CCK release and, 197
with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
sorbitol and glutathione in erythrocytes and, 612
- HCO₃** (bicarbonate) in Bardet-Biedel syndrome children, 1231
- HCV** (hepatitis C virus) status of β -thalassemia major subjects, 652-657
- HD** (hemodialysis), protein oxidation in, 1319-1322
- HDL(s)**, *see* High-density lipoprotein(s)
- HDL-C**, *see* High-density lipoprotein-cholesterol
- Healthy subjects**, *see* Normal adult subjects
- Heart**
CL316,243 effects on NE turnover in, SNS activity and, 788
O₂ consumption in hepatomesenteric bed, brain and, of young and elderly men, sympathetic nervous activity with, 1487-1492
troglitazone effects on weight of, in STZ-DM, 1169
see also Coronary heart disease; Heart performance; Heart rate;
Organ weight, heart and *entries beginning with terms*: Cardiovascular, Myocardial, Ventricular
- Heart performance**, insulin and glucose effects on, 775
- Heart rate (HR)**
and endogenous opioid response to exercise in IDDM, 139
in exercise with pivalic acid-induced carnitine deficiency, 1504
hyperglycemia effects on, during ischemia, 544
of hypertensive subjects with LVH, 1327
intrarenal glucagon effects on, 385
mental stress and, in adolescent boys with IRS, 614-621
and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
theophylline effects on, during exercise and, 1156
- Height**
of aging women, 44, 45
and androgen regulation of GHBP, 1522
and body composition of healthy Indian and Swedish men, 635
of cancer patients, response to radiation therapy and, 768
of CHD subjects, 670
and circadian relationships between serum Ca, serum phosphate, and circulating ANPs, 1022
exercise and, *see* Height, exercise and
of FHLB subjects, 1297
of FHTG and FDL subjects, 1308
and fibrinolytic potential, 1429
of hypertensive subjects with LVH, 1327
and insulin effects on HGP, 83
of insulin-resistant adolescents, 909
of Laron syndrome subjects, 1264
of NIDDM subjects, *see* Height of NIDDM subjects
of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
and O₂ consumption in heart, hepatomesenteric bed, and brain, 1488
of obese subjects, *see* Height of obese subjects
of PWS subjects, 1515, 1516
and regional FFA kinetics, 663
of smokers, and smoking effects on REE, 924
- Height, exercise and**
and diet effects on glucose homeostasis and serum lipid levels, 436
and effects of GH administration and resistance exercise in older men, 256
of IDDM subjects, and endogenous opioid response to exercise, 139
and influence of age, sex and adiposity on metabolically active component of FFM, 993
relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 748
and strenuous exercise effects on glycerol kinetics, 358
- Height of NIDDM subjects**
and effects of vanadyl sulfate on CHO and lipid metabolism, 1131
and relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 748
of untreated NIDDM subjects, 493
- Height of obese subjects**
of obese adolescents, cardiovascular risk factors and, 235
of obese NIDDM women, relationship between glucose metabolism and thermogenesis with and without prior exercise and, 748
of obese 10-year-old girls, 471
- Hematocrit**, intrarenal glucagon action on, 385
- Hemodialysis (HD)**, protein oxidation in, 1319-1322
- Hemodynamics**
renal, intrarenal glucagon action on, 383-388
see also Blood flow; Blood pressure; Heart rate; Plasma flow
- Hemoglobin**, *see entries beginning with acronym*: Hb
- Hemorheological parameters**, effects of omega-FAs and fenofibrate on lipids and, in FDL and FHTG, 1305-1311
- Hepatic apolipoprotein B (apo B) RNA** (ribonucleic acid) editing in genetic obesity, 1056-1058
- Hepatic artery glucose** in conscious subjects, glyburide effects on, 580
- Hepatic blood flow**, glyburide effects on, in conscious subjects, 580
- Hepatic dysfunction**, glucose intolerance in β -TM related to insulin resistance and, 652-657
- Hepatic fructose-1,6-biphosphatase (FBPase)**, impaired regulation of, in obese NIDDM subjects, 622-626
- Hepatic gluconeogenesis**, stress hormone effects on, in conscious subjects, 573-574
- Hepatic glucose**
effects of decreasing plasma FFAs by ACX on metabolism of, in normal subjects, 1408-1414
see also Hepatic glucose production
- Hepatic glucose production (HGP)**
glucalazide effects on, *see* Glucalazide, effects of, on HGP
glyburide effects on, in conscious subjects, 583
hyperglycemia and alteration of glucagon ability to activate glycogen phosphorylase and increase, 481-485
indomethacin and pentoxifylline modulating, in healthy subjects, 1458-1465
insulin effects on turnover of, constant SA technique versus isotope dilution technique in estimation of, 82-91
and MIDA glucose with [2-¹³]glycerol, 897-901
moderate decline in SA and, 587-593
- Hepatic glycogen**, stress hormone effects on, in conscious subjects, 574
- Hepatic insulin**
extraction of, and beta cell activity following dexamethasone administration in healthy subjects, 486-492
glyburide effects on, in conscious subjects, 581-583

- Hepatic insulin resistance, relationship of, with PAI-1 in Pima Indians, 1243-1247
- Hepatic lipase (HL) activity, effects of GH therapy of GH-deficient men on, 370-377
- Hepatic low-density lipoprotein (LDL) receptor, GH effects on, in hypothyroidism, 683
- Hepatic mRNA (messenger ribonucleic acid) of HDL and LDL receptor, GH effects on, in hypothyroidism, 683
- protein and TNF, determinants of concentrations of, in malnourished subjects, 1273-1276
- Hepatic nuclear protein, total, starvation effects on, 971
- Hepatic portal blood flow, differential effects of pathophysiological versus physiological concentrations of plasma E and NE on KB metabolism and, 1214-1220
- Hepatic triacylglycerol (TAG), OFS effects on fructose impact on metabolism of, 1547-1550
- Hepatic vein alanine, stress hormone effects on, in conscious subjects, 576
- Hepatic vein glucose in conscious subjects, glyburide effects on, 580
- Hepatic vein lactate, stress hormone effects on, in conscious subjects, 576
- Hepatitis C virus (HCV) status of beta-thalassemia major subjects, 652-657
- Hepatocytes, glucose cycling by, effects of thyroid status on, 101-108
- Hepatoma 7777, Morris, reduced immune function and reduced splenocyte metabolism in subjects implanted with, 848-855
- Hepatosesenteric bed, O₂ consumption in heart, brain and, of young and elderly men, sympathetic nervous activity with, 1487-1492
- Heterozygous father, sitosterolemia, cholestyramine and lovastatin effects on plasma sterol levels in, and in his sitosterolemia homozygous girl, 673-679
- HF, *see* High-fat diet
- HFHS (high-fat, high-sucrose) diet, effects of, on malonyl coenzyme A in obese salt-sensitive subjects, 519-525
- HGP, *see* Hepatic glucose production
- High-density lipoprotein(s) (HDLs; α -lipoproteins) and adenoviral delivery of LDL receptors in hyperlipidemic subjects, 1447-1457
- low-fat diet effects on, in sitosterolemia, 674
- of normolipidemic men, myristate, palmitate, and stearate metabolism and, 1109
- relation of, to metabolic parameters and severity of CAD, 1375-1382
- see also* High-density lipoprotein(s) in IDDM; High-density lipoprotein₂; High-density lipoprotein₃; High-density lipoprotein-cholesterol; High-density lipoprotein-cholesteryl ester; High-density lipoprotein-cholesteryl ester; Lipoprotein(a)
- High-density lipoprotein(s) in IDDM
- PP changes in composition and subfraction distribution of, 1034-1041
- progression of microalbuminuria and, 1103, 1104
- High-density lipoprotein₂ (HDL₂)
- in NIDDM, 1384
- PP changes in composition and subfraction distribution of, in IDDM, 1034-1041
- see also* High-density lipoprotein₂-cholesterol
- High-density lipoprotein₃ (HDL₃)
- in NIDDM, 1384
- PP changes in composition and subfraction distribution of, in IDDM, 1034-1041
- see also* High-density lipoprotein₃-cholesterol
- High-density lipoprotein-cholesterol (HDL-C)
- AAS abuse effects on, 845
- and abdominal AT distribution, metabolic risk factors and, 1121
- in adolescents with insulin resistance, 909-911
- in CAD, 1378-1380
- in CHD, *see* High-density lipoprotein-cholesterol in CHD
- exercise and, *see* High-density lipoprotein-cholesterol, exercise and
- in FH, GH and, 1417, 1418
- in FHLB, 1297, 1302
- in FHTG and FDL, 1308
- fibrinolytic potential and, 1429
- GH therapy effects on, 372, 1017
- in glomerular proteinuria, 726
- in high SFA diet, 553, 555, 556
- hydrogenated fat diet effects on, 244
- in hyperuricemia, hypertriglyceridemia, DM, and hypertension, 700-703
- in IDDM, *see* High-density lipoprotein-cholesterol in IDDM
- and insulin effects on levels of circulating vitamin E, 999, 1000
- in IRS, 1535, 1536
- in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA and, 1013
- nandrolone decanoate effects on, 465
- in NIDDM, *see* High-density lipoprotein-cholesterol in NIDDM
- in obesity, *see* High-density lipoprotein-cholesterol in obesity
- oral albuterol effects on, 714
- overfeeding effects on, 1046
- palmitic and stearic acid effects on, 146
- plasma, *see* Plasma high-density lipoprotein-cholesterol
- postprandial, 17 β -estradiol reducing, in postmenopausal women, 827-832
- and relationship of plasma TGs, apo B and, to postheparin LPL activity, 263
- serum, *see* Serum high-density lipoprotein-cholesterol
- in uremia, 688, 689
- and urinary excretion of E₂ and T, 281-283
- voglibose effects on, in nondiabetic hyperinsulinemia, 734
- see also* High-density lipoprotein₂-cholesterol; High-density lipoprotein₃-cholesterol
- High-density lipoprotein-cholesterol (HDL-C), exercise and exercise and diet effects on, 436
- exercise effects on HDL-C concentrations related to apo E phenotype in boys and young adults, 798
- High-density lipoprotein-cholesterol (HDL-C) in CHD
- high- versus low-glycemic CHO effects, 671
- lipid and CHO metabolic risk markers for CHD and BP in non-obese premenopausal women, 330
- High-density lipoprotein-cholesterol (HDL-C) in IDDM
- intraperitoneal insulin effects on, 432
- Lp, apo, and LDL size and, 1268, 1269
- in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
- High-density lipoprotein-cholesterol (HDL-C) in NIDDM
- cardiovascular risk factors and RBC membrane SLC and, 962, 963
- Lp, apo, and LDL size and, 1268, 1269
- in normotriglyceridemic NIDDM, 64, 67
- plasma, role of AT loss in exercise-induced improvement in, 1384
- High-density lipoprotein-cholesterol (HDL-C) in obesity
- in obese adolescents, 235
- in obese 10-year-old girls, race and, 469-474
- High-density lipoprotein₂-cholesterol (HDL₂-C)
- in FHTG and FDL, 1308
- in high SFA diets, 553

- High-density lipoprotein₂-cholesterol (HDL₂-C) (*Continued*)
 and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330
 pancreas transplantation effects on, 858
 and relationship of plasma TGs, HDL-C, and apo B to posthepatic LPL activity, 263
 and urinary excretion of E₂ and T, 281-283
 in visceral obesity-insulin resistance-dyslipidemic syndrome, 885, 886
- High-density lipoprotein₃-cholesterol (HDL₃-C)
 in FHTG and FDL, 1308
 in high SFA diet, 553
 and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330
 pancreas transplantation effects on, 858
 and urinary excretion of E₂ and T, 281-283
 in visceral obesity-insulin resistance-dyslipidemic syndrome, 885, 886
- High-density lipoprotein (HDL)-cholesteryl ester, metabolism of, in genetic hypercholesterolemia, 7
- High-fat (HF) diet
 decreased fat oxidation following meal, in weight-reduced subjects, 174-178
 hyperglycemia and obesity induced by, effects of different oils on, 1539-1546
- High-fat, high-sucrose (HFHS) diet, effects of, in obese subjects, 519-525
- High-glycemic carbohydrates (CHOs), effects of low-glycemic CHOs versus, on insulin and glucose response in CHD, 669-672
- High-nicotine cigarette smoking, low- versus, impact of, on REE, 923-926
- Hirsute women
 hyperandrogenic severely, long-acting GnRH in, 25-27
 obese, hormonal parameters in, 72-75
 young, menstrual history and BMD in, 515-518
- Histidine, MH 7777 effects on concentrations of, 851
- HIV (human immunodeficiency virus) infection, anterior pituitary- and pituitary-dependent target organ function in men with, 738-746
- HL (hepatic lipase) activity, effects of GH therapy for GH-deficient men on, 370-377
- ²H₂O₂ (deuterated water), plasma C and FA synthesis measurement with, number of incorporated deuterium atoms determined with, 817-821
- Homeostasis, glucose, *see* Glucose homeostasis
- Homocysteine, hyperhomocysteinemia following methionine load in NIDDM with vascular disease, 133-135
- Homovanillic acid (HVA), brain, IV γ -glutamyl tyrosine effects on, 130
- Homozygous sitosterolemia girl, cholestyramine and lovastatin effects on plasma sterol levels in heterozygous sitosterolemia father and his, 673-679
- Hormone replacement therapy, effects of, on CHO metabolism and cardiovascular risk factors in postmenopausal subjects, 1254-1262
- Hormone-sensitive lipase (HSL), amino acid polymorphism in, in Japanese NIDDM subjects, 862-864
- Hospitalized subjects, serum uric acid in, 1557-1561
- HPA (hypothalamus-pituitary-adrenal) axis, activity of, and its relationship to AN in premenopausal obese women with VAT and SAT, effects of CRF/AVP and stress tests on, 351-356
- HPO, *see* Hypothalamus-pituitary-ovary axis
- HPT (hypothalamus-pituitary-thyroid) axis in SCI women, 718-722
- HR, *see* Heart rate
- HS (hunger sensation) in obesity with NIDDM, 24-hour pattern of, 1342-1347
- HSL (hormone-sensitive lipase), amino acid polymorphism in, in Japanese NIDDM subjects, 862-864
- Human immunodeficiency virus (HIV) infection, anterior pituitary- and pituitary-dependent target organ function in men with, 738-746
- Hunger sensation (HS) in obesity with NIDDM, 24-hour pattern of, 1342-1347
- HVA (homovanillic acid), brain, IV γ -glutamyl tyrosine effects on, 130
- Hydrogen, breath, acarbose effects on, 1182-1183
- Hydrogenated dietary fat, effects of, on C synthesis and LDL oxidation in moderate hypercholesterolemia, 241-247
- Hydrolysis, phosphoinositide, GLP-1 stimulating insulin secretion but not, from pancreatic islets desensitized by exposure to high glucose or carbachol, 273-278
- 3-Hydroxybutyrate (3-OHB), octreotide effects on, in IDDM, 214
- β -Hydroxybutyric acid (β -OHB)
 effects of exercise on, in normal and STZ-DM subjects, 811
 in familial leucine-sensitive hypoglycemia, glucose effects on, 958
- 5-Hydroxycarboxylic acid, urinary excretion of, in dicarboxylic aciduria, 163-164
- 4-Hydroxyestrone, antioxidant effects of, on lipid peroxidation, 411-414
- 5-Hydroxyhexanoic acid, urinary excretion of, in dicarboxylic aciduria, 163-164
- 7-Hydroxyoctanoic acid, urinary excretion of, in dicarboxylic aciduria, 163-164
- 17-Hydroxyprogesterone, *see* 17-OHP
- Hyperammonemia, familial leucine-sensitive hypoglycemia with concomitant, 957-960
- Hyperandrogenic women, severely hirsute, long-acting GnRH in, 25-27
- Hypercholesterolemia
 familial, *see* Familial hypercholesterolemia
 genetic, plasma Lp metabolism in, 4-11
 moderate, hydrogenated dietary fat effects on C synthesis and LDL oxidation in, 241-247
 with thrombophilia, 966-969
- Hyperglycemia
 and alteration of glucagon ability to increase hepatic glucose production and activate glycogen phosphorylase, 481-485
 effects of, on myocardial interstitial glucose and glucose uptake during ischemia, 542-549
 GH effects on, in multiple trauma subjects on TPN, 450-456
 HF diet-induced obesity and, effects of different oils on, 1539-1546
 macrophage response to CSF-1 in, 1125-1129
- Hyperglycemic factor, *see* Glucagon
- Hyperhomocysteinemia following methionine load in NIDDM and macrovascular disease, 133-135
- Hyperinsulinemia
 associated with ventricular premature complexes, 1248-1253
 effects of, on PAI-1, 1245
 HFHS diet effects on, in obese subjects, 519-525
 insulin resistance and, with portal-caval transposition, 120-125
 lack of association between smoking and, 1551-1556
 nondiabetic, voglibose effects on dyslipidemia and insulin sensitivity in, 731-737
 relationship between plasma PL SFAs and, 223-228
- Hyperlipidemia
 estrogen increasing apo B-independent catabolism of LDL receptor in, 889-896

Hyperlipidemia (Continued)

- LDL receptors in, *see* Low-density lipoprotein receptor(s) in hyperlipidemia
- serum lathosterol-to-cholesterol ratio is not elevated in glomerular proteinuria and not associated with improved, in response to antiproteinuria therapy, 723-730
- see also specific hyperlipidemic conditions*
- Hyperparathyroidism, primary, decreased cortical and cancellous bone in, 76-81
- Hypertension
 - CAD and, 1377
 - essential, urapidil effects on plasma F_n in, 1221-1229
 - glucose in, *see* Glucose in hypertension
 - hyperuricemia, hypertriglyceridemia, DM and, associated with fasting insulin and central and overall obesity, 699-706
 - in IDDM, blood cell membrane phospholipid composition and, 59
 - with LVH, BNP during ergometric exercise by patients with, 1326-1329
 - metformin effects on vascular reactivity in fructose-hypertensive subjects, 1053-1055
 - in obese adolescents, 235
 - in STZ-DM, *see* Hypertension, and STZ-DM
- Hypertension, and NIDDM
 - blood cell membrane phospholipid composition and, 59
 - cardiovascular risk factors and RBC membrane SLC and, 963
- Hypertension, and STZ-DM
 - effects of gonadectomy on development of albuminuria, hypertension, and STZ-DM, 155-161
 - insulin resistance with hypertension in STZ-DM, alacepril effects on, 457-462
- Hyperthyroidism
 - GH response to glucose in, effects of early changes in plasma glucagon on, 1029-1033
 - increased erythrocyte Na influx and Ca uptake in, erythrocyte membrane phospholipid level and, 707-711
 - T₃ in, *see* Triiodothyronine in hyperthyroidism
 - T₄ in, *see* Thyroxine in hyperthyroidism
- Hypertriglyceridemia
 - familial, effects of omega-FAs and fenofibrate on lipids and hemorrheological parameters in FDL and, 1305-1311
 - hyperuricemia, DM, and hypertension with, associated with fasting insulin and central and overall obesity, 699-706
- Hypertrophy, left ventricular, hypertension with, BNP during ergometric exercise by patients with, 1326-1329
- Hyperuricemia, hypertriglyceridemia, DM, and hypertension with, associated with fasting insulin and central and overall obesity, 699-706
- Hypobetalipoproteinemia, familial, apo B-43.7 in, 1296-1304
- Hypoglycemia
 - familial leucine-sensitive, with concomitant hyperammonemia, 957-960
 - in IDDM, *see* Hypoglycemia in IDDM
 - idiopathic reactive, nonoxidative metabolism of postprandial glucose in, 606-610
- Hypoglycemia in IDDM
 - with impaired hypoglycemia awareness, acute hypoglycemia effects on rCBF in, 974-980
 - time course of defective alpha cell response to, 1422-1426
 - in well-controlled IDDM, responses of PRL and β -endorphin to, 1434-1440
- Hypothalamic ablation, medial basal, effects of, on EtOH-induced PRL release, 1332
- Hypothalamic deafferentation, medial basal, on EtOH-induced PRL release, 1331-1332

- Hypothalamic-pituitary growth, defective gonadal axes and, with empty sellae, and impaired testosterone secretion in Bardet-Biedel syndrome children, 1230-1234
- Hypothalamus-pituitary-adrenal (HPA) axis, activity of, and its relationship to AN in premenopausal obese women with VAT and SAT, effects of CRF/AVP and stress tests on, 351-356
- Hypothalamus-pituitary-ovary (HPO) axis
 - in SCI women, 718-722
 - in severely hyperandrogenic hirsute women, GnRH therapy effects on, 25-27
- Hypothalamus-pituitary-thyroid (HPT) axis in SCI women, 718-722
- Hypothyroidism, normalization of LDL gene receptor expression in, with GH, 680-686
- Hypoxanthine, *see* Purine bases
- IBAT (intercapsular brown adipose tissue), and CL316,243 effects on SNS activity, 788
- ICAM-1 (intercellular adhesion molecule-1), circulating, level of HbA_{1c}, MDA and, in NIDDM, oxidative stress and, 498-501
- IDDM, *see* Insulin-dependent diabetes mellitus
- Identical twins, body weight recovery by, after 5-year overfeeding, 1042-1050
- Idiopathic reactive hypoglycemia (IRH), nonoxidative metabolism of postprandial glucose in, 606-610
- IDL, *see* Intermediate-density lipoprotein
- IDL-C (intermediate-density lipoprotein-cholesterol), pancreas transplantation effects on, 858
- IGF, *see* Insulin-like growth factor-I; Insulin-like growth factor-II
- IGFBP, *see* Insulin-like growth factor binding protein-1; Insulin-like growth factor binding protein-2 mRNA; Insulin-like growth factor binding protein-3
- IGT (impaired glucose tolerance), obese women with, dysfunctional pancreatic islets in, 502-510
- Immune function, reduced, and reduced splenocyte metabolism in subjects implanted with MH 7777, 848-855
- Immunocytochemical localization of GLUT1 and GLUT3 polypeptides in peripheral nerve, 1468-1470
- Immunoreactive insulin (IRI)
 - and long-term sucrose-rich diet, 1528-1529
 - PCT and, 122, 123
 - serum, and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
- Impaired glucose tolerance (IGT), obese women with, dysfunctional pancreatic islets in, 502-510
- Income of IDDM subjects, WHR and, 269
- Indian Mauritians, nondiabetic, relationship of insulin resistance to weight loss in, 627-633
- Indian men, CT-determined body composition of healthy Swedish and, in relation to CV risk factors, 634-644
- Indirect calorimetry in measurement of octreotide effects in IDDM, 214
- Indomethacin, pentoxifylline and, modulating HGP, in healthy subjects, 1458-1465
- Infancy
 - urinary excretion of pyridinium cross-links of collagen in, 510-514
- see also Children*
- Infection
 - effects of, on polyamine metabolism in small intestine mucosa, 28-33
 - HIV, anterior pituitary- and pituitary-dependent target organ function in men with, 738-746
- Inflammatory state, effects of nutritional state and, on liver of elderly subjects, ³¹P magnetic resonance spectroscopy in assessment of, 1059-1061

- Inherited diabetes and deafness, maternally, insulin resistance associated with, 526-531
- Injury, *see* Trauma and injury
- Inorganic plasma phosphate, effects of xylitol on, 1356-1357
- Inositol, *see* myo-inositol
- Insulin
- arterial, intrarenal glucagon action on, 385
 - in CAD, 1377-1379
 - cells producing, functional active receptors for IGF-I and IGF-II on, 759-766; *see also* Beta cells
 - and CV risk factors in healthy Indian and Swedish men, 640, 641
 - and diet effects on glucose homeostasis and serum lipid levels in exercise, 436
 - effects of, on circulating vitamin E levels, 998-1003
 - effects of, on HGP, constant SA technique versus isotope dilution technique in estimation of, 82-91
 - effects of, on intracellular Ca concentrations, 1402-1407
 - effects of, on plasma PAI-1 and t-PA in young women on contraceptive steroids, 833-838
 - effects of gastric emptying rate on, 1176
 - in familial leucine-sensitive hypoglycemia, glucose effects on, 958
 - fasting, *see* Fasting insulin
 - gene of signal-transduction pathway intermediates of, effects of beef tallow and safflower oil diets on expression of, 1080-1088
 - GH therapy effects on GH-deficient men and, 366
 - glucose transport in muscle and fat cells stimulated by, TNF- α effects on, 1089-1094
 - hepatic, *see* Hepatic insulin
 - in HF diet-induced hyperglycemia and obesity, 1541, 1542
 - in hypercholesterolemic thrombophilia, 967
 - immunoreactive, *see* Immunoreactive insulin
 - in IRH, 608
 - myocardial 1,2-DAG increased by, 774-781
 - in NIDDM, *see* Insulin in NIDDM
 - in obesity, *see* Insulin in obesity
 - during OGTT, 599
 - pancreas transplantation effects on, 857
 - plasma, *see* Plasma insulin
 - plasma E and NE effects on, 1217, 1218
 - portal versus peripheral delivery of, in handling of portally delivered glucose, 150-154
 - in PWS, 1514-1520
 - stress hormone effects on, in conscious subjects, 573
 - see also* Hyperinsulinemia; Insulin-dependent diabetes mellitus; Insulin receptor gene; Insulin release and secretion; Insulin resistance; Insulin resistance syndrome; Insulin sensitivity; Insulinitis; Non-insulin-dependent diabetes mellitus; Proinsulin; des 31,32 Proinsulin and entries beginning with terms: Insulin-like growth factor
- Insulin in CHD
- effects of high- versus low-glycemic CHOs on response of, 669-672
 - and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330
- Insulin-dependent diabetes mellitus (IDDM; type I diabetes mellitus)
- adult-onset, effects of intensive therapy of, on insulin sensitivity and insulin reserve, 1508-1513
 - beta cells in, *see* Beta cells in IDDM
 - changes in PL composition of PMN leukocyte, erythrocyte, and platelet membranes in, 57-62
 - exercise in, *see* Exercise in IDDM
 - glucose, *see* Glucose in IDDM
 - Insulin-dependent diabetes mellitus (IDDM; type I diabetes mellitus) (*Continued*)
 - hypoglycemia in, *see* Hypoglycemia in IDDM
 - intraperitoneal insulin effects on choline-containing LpB-PLs in, 430-434
 - Lp, apo, and LDL size in, 1267-1272
 - octreotide effects on glucose metabolism and insulin sensitivity in, 211-217
 - plasma met-enkephalin in, autonomic neuropathy and, 1065-1068
 - PP changes in HDL composition and subfraction distribution in, 1034-1041
 - progression in microalbuminuria in, apo B as predictor of, 1101-1107
 - psychosocial factors and WHR in, 268-272
 - RA status, and development of, 248-254
 - RBC Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP concentration in, 927-934
 - twins with nonnephropathic, erythrocyte membrane SLC kinetics in 1203-1207
 - well-controlled, responses of PRL and β -endorphin to, 1434-1440
- Insulin-like growth factor-I (IGF-I)
- in Bardet-Biedel syndrome children, 1232
 - dominant negative effects of kinase-defective IRs on signaling in fibroblasts stimulated by, 1474-1482
 - effects of long-term treatment with, on serum Lp(a) in Laron syndrome, 1263-1266
 - functional active receptors for, on insulin-, glucagon-, and somatostatin-producing cells, 759-766
 - GH therapy and, *see* Insulin-like growth factor-I, GH therapy and
 - hormone replacement therapy effects on, in postmenopausal subjects, 1258
 - in multiple trauma, 453
 - plasma, *see* Plasma insulin-like growth factor-I
 - response of, to T and DHT, 1523
 - severe resistance to, in leprechaunism, due to two mutations of tyrosine kinase domain of insulin receptor gene, 1493-1500
- Insulin-like growth factor-I (IGF-I), GH therapy and
- effects of resistance exercise and, in older men on, 256
 - for GH-deficient men, effects of, on IGF-I, GH, IGFBP-3, and glucose homeostasis, 362-369
- Insulin-like growth factor-II (IGF-II), functional active receptors for, on insulin-, glucagon-, and somatostatin-producing cells, 759-766
- Insulin-like growth factor binding protein-1 (IGFBP-1), effects of GH therapy for GH-deficient men on IGF-I, GH, IGFBP-3, and glucose homeostasis, 362-369
- Insulin-like growth factor binding protein-2 (IGFBP-2) mRNA (messenger ribonucleic acid) in malnourished subjects, 1275
- Insulin-like growth factor binding protein-3 (IGFBP-3), effects of GH therapy for GH-deficient men on IGF-I, GH, IGFBP-1, and glucose homeostasis, 362-369
- Insulin in NIDDM
- effects of starvation in untreated NIDDM on plasma insulin concentrations, 492-497
 - in normotriglyceridemic NIDDM, 64, 67
 - with and without renal insufficiency, insulin effects on urinary excretion of phosphate in, 782-786
- Insulin in obesity
- cephalic-phase insulin response in nondiabetic obese subjects, 168-173
 - hyperuricemia, hypertriglyceridemia, DM, and hypertension associated with fasting plasma insulin level and central and overall obesity, 699-706
 - with IGT, 504, 505

- Insulin in obesity (*Continued*)
 interstitial insulin in obese and lean subjects, 951-956
 in obese adolescents, 235
- Insulin receptor(s) (IRs)
 autophosphorylation of, *see* Autophosphorylation, IR
 dominant negative effect of kinase-defective, on IGF-I-stimulated signaling in fibroblasts, 1474-1482
- Insulin receptor (IR) gene, severe resistance to insulin and IGF-I due to two mutations of tyrosine kinase domain of, in leprechaunism, 1493-1500
- Insulin release and secretion
 due to A-4166, 184-189
 effects of GH administration and resistance exercise in older men on, during IVGTT, 254-260
 effects of moderate protein increase on, 1483-1486
 GLP-1 stimulating, but not phosphoinositide hydrolysis from pancreatic islets desensitized by exposure to high glucose or carbachol, 273-278
 glucose-induced, RA status and, 250
 glyburide effects on tissue uptake, action and, in conscious subjects, 579-586
 L-NMMA effects on, in diabetic syndrome, 940-946
 paracrine action of pancreatic islet-derived corticotropin-like peptides on regulation of, 565-570
- Insulin resistance
 alacepril effects on hypertension and, in STZ-DM, 476-462
 effects of, on DHEA in morbidly obese adolescents, 1011-1015
 effects of trandolapril alone or in combination with verapamil on glucose transport in insulin-resistant skeletal muscle, 535-541
 glucose intolerance in β -TM related to hepatic dysfunction and, 652-657
 hepatic and peripheral, relationship of, with PAI-1 in Pima Indians, 1243-1247
 hyperinsulinemia and, with portal-caval transposition, 120-125
 and insulin effects on intracellular Ca concentrations, 1402-1407
 and Mg deficiency effects on glucose oxidation to CO₂ in adipocytes, 838-843
 MIDD-associated, 526-531
 in NIDDM, lack of relationship between urinary albumin excretion and, 1062-1064
 plasma HDL-C as correlate of visceral obesity-insulin resistance-dyslipidemic syndrome in men, 882-888
 relationship of, to weight gain in nondiabetic Creole, Chinese, and Indian Mauritians, 627-633
 severe, in leprechaunism, due to two mutations of tyrosine kinase domain of insulin receptor gene, 1493-1500
 smoking and, 1551-1556
 in Swedish adolescents, 908-914
see also Insulin resistance syndrome; Insulin sensitivity
- Insulin resistance syndrome (IRS), stress and
 and autonomically mediated physiological responses to experimentally induced mental stress in adolescent boys, 614-621
 psychological stress and, 1533-1538
- Insulin sensitivity
 effects of GH administration and resistance exercise in older men on, during IVGTT, 254-260
 effects of intensive therapy of adult-onset IDDM on insulin reserve and, 1508-1513
 and insulin effects on levels of circulating vitamin E, 999
 M16209 effects on, 1095-1100
 muscle, intramuscular TGs and, in nondiabetic subjects, 947-950
 octreotide effects on glucose metabolism and, in IDDM, 211-217
 voglibose effects on dyslipidemia and, in nondiabetic hyperinsulinemia, 731-737
see also Insulin resistance
- Insulinitis, RA status, and development of, 248-254
- Intensive therapy of adult-onset insulin-dependent diabetes mellitus (IDDM), insulin sensitivity and insulin reserve with, 1508-1513
- Intercapsular brown adipose tissue (IBAT), and CL316,243 effects on SNS activity, 788
- Intercellular adhesion molecule-1 (ICAM-1), level of HbA_{1c}, MDA and, in NIDDM, oxidative stress and, 498-501
- Intermediate-density lipoprotein (IDL)
 in FHLB, 1302
 of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- Intermediate-density lipoprotein-cholesterol (IDL-C), pancreas transplantation effects on, 858
- Interstitial glucose, myocardial, hyperglycemia effects on glucose uptake and, during ischemia, 542-549
- Interstitial insulin in obese and lean subjects, 951-956
- Intestinal sucrose, L-arabinose inhibiting, after sucrose ingestion, 1368-1374
- Intestine
 small, *see* Small intestine
 substrate balance in, stress hormone effects on, in conscious subjects, 575-576
see also Mucosa, intestinal
- Intracellular Ca (calcium), insulin effects on concentrations of, 1402-1407
- Intracellular Ca²⁺ (calcium ion), role of, in regulation of gluconeogenesis, 389-403
- Intracellular glucose, VS effects on, 1132
- Intramuscular triglycerides (TGs), and muscle insulin sensitivity in nondiabetic subjects, 947-950
- Intraperitoneal (IP) insulin, effects of, on choline-containing LpB-PLs in IDDM, 430-434
- Intrarenal glucagon, action of, on renal hemodynamics, renal metabolism, and renal Na handling, 383-388
- Intravenous (IV) glucose tolerance test (IVGTT)
 in conscious subjects, glyburide effects on, 579-586
 effects of resistance exercise and GH administration in older men on insulin secretion and insulin sensitivity during, 254-260
 and long-term sucrose-rich diet, 1529-1530
 oral albuterol effects on, 714
 in PWS, 1514-1520
 in β -thalassemia major, 652-657
 of young women on contraceptive steroids, 835-836
see also Frequently sampled intravenous glucose tolerance test
- Intravenous (IV) γ (gamma)-glutamyl tyrosine, effects of, on brain tyrosine and catecholamine concentrations in normal subjects, 126-132
- IP (intraperitoneal) insulin, effects of, on choline-containing LpB-PLs in IDDM, 430-434
- IR(s), *see* Insulin receptor(s); Insulin receptor gene
- IRH (idiopathic reactive hypoglycemia), nonoxidative metabolism of postprandial glucose in, 606-610
- IRI, *see* Immunoreactive insulin
- IRS, *see* Insulin resistance syndrome, stress and
- Ischemia, hyperglycemia effects on myocardial interstitial glucose and glucose uptake during, 542-549
- Islets, *see* Pancreatic islet(s); Pancreatic islet cell antibodies
- Isoleucine, MH 7777 effects on concentrations of, 851
- N[(trans-4-Isopropylcyclohexyl)-carbonyl]-D-phenylalanine (A-4166), somatostatin and insulin secretion due to, 184-189
- Isotope dilution technique, constant SA technique versus, in estimation of insulin effects on HGP, 82-91
- IV, *see* entries beginning with term: Intravenous

- Japanese non-insulin-dependent diabetes mellitus (NIDDM) subjects, polymorphism in
 amino acid polymorphism in HSL, 862-864
 polymorphism of ACE and AGN genes in nephropathic NIDDM subjects, 218-222
- Jejunal mucosa, ODC activity in, after food intake, lingual factors in, 1284-1287
- K (potassium)
 erythrocyte, in hyperthyroidism, 709
 intrarenal glucagon action on arterial, 385
 plasma, *see* Plasma K
 serum, oral albuterol effects on, 714, 716
 total body, *see* Total body K
see also K_g ; K^+ channel opener; Na^+/K^+ ATP; Na^+/K^+ ATPase; Urinary excretion, K
- K_g in beta-thalassemia major, 655
- K^+ (potassium) channel opener, ATP-sensitive to, inhibition of A-4166-induced insulin and somatostatin release and, 185-186
- KBs, *see* Ketone bodies
- Ketoacidosis, diabetic, relationship between AT production of PGI_2 , PGE_2 , and 6-keto- $PGF_{1\alpha}$, plasma insulin level, and BP in DM, normal adult subjects, and in subjects with, 691-698
- Ketone(s), total, relationship between plasma insulin, BP, and levels of, in normal, DM, and DKA subjects, 693
- Ketone bodies (KBs)
 differential effects of pathophysiological versus physiological concentrations of plasma E and NE on hepatic portal blood flow and metabolism of, 1214-1220
 effects of CHO and dietary fat ingestion during prolonged exercise on, 919
- 6-Keto-prostaglandin $F_{1\alpha}$ ($PGF_{1\alpha}$), relationship between AT production of PGI_2 , PGE_2 and, BP in normal, diabetic, and DKA subjects, and plasma insulin level, 691-698
- Kidney, *see* Nonnephropathic insulin-dependent diabetes mellitus; Organ weight, kidney entries beginning with terms: Intrarenal, Renal and element: Nephro-
- Kinase
 dominant negative effect of kinase-defective IR on IGF-I-stimulated signaling in fibroblasts, 1474-1482
see also Protein kinase; Tyrosine kinase
- Kinetics
 glucose, *see* Kinetics, glucose
 glycerol, effects of strenuous exercise on, 357-361
 insulin, during FSIGT, 600
 lactate, during short exercise by pregnant women, 753-758
 of RBC membrane SLC in nonnephropathic IDDM twins, 1203-1207
 rectal proliferative, acarbose effects on, 1183, 1184
 regional FFA, contributing to postabsorptive FFA flux in men and women, 662-666
 substrate, of CHO ingestion and CHO loading during prolonged exercise, compared, 415-423
 of sucrose inhibition by L-arabinose, 1370
 tracer, muscle protein synthesis and degradation in anesthesia measured with, 1279-1283
- Kinetics, glucose
 effects of parasympathetic denervation of liver and pancreas on, 987-991
 during FSIGT, 600
 in multiple trauma, 454
 in NIDDM, gliclazide effects on, 1197
 during short exercise by pregnant women, 753-758
- Lactate
 arterial, *see* Arterial lactate
 blood, and exercise with pivalic acid-induced carnitine deficiency, 1504
 in familial leucine-sensitive hypoglycemia, glucose effects on, 958
 and glucose cycling by hepatocytes, 104
 hepatic and portal vein, stress hormone effects on, in conscious subjects, 580
 hyperglycemia effects on, during ischemia, 545-546
 intrarenal glucagon action on, 385, 386
 kinetics of, during short exercise by pregnant women, 753-758
 octreotide effects on, in IDDM, 214
 plasma, and plasma C and FA synthesis measurement with deuterated water, 819, 820
 splenocyte, MH 7777 effects on metabolism of, 852
- Lactic acid, blood, xylitol effects on, 1358
- LANPs (long-acting natriuretic peptides), circadian relationships between serum Ca, serum phosphate, and circulating, 1021-1028
- Lard, effects of, in hyperglycemia and obesity, 1540, 1541
- Laron syndrome, long-term IGF-I therapy effects on serum Lp(a) in, 1263-1266
- Lathosterol, serum lathosterol-to-cholesterol ratio is not elevated in glomerular proteinuria and not associated with improved hyperlipidemia in response to antiproteinuria therapy, 723-730
- LC/APCI-MS (liquid chromatography-mass spectrometry with atmospheric pressure chemical ionization interface system), N-acetylcyclic cystathionine and cyclic cystathionine sulfoxide in cystathioninuria identified with, 1312-1316
- LDL(s), *see* Low-density lipoprotein(s)
- LDL-C, *see* Low-density lipoprotein-cholesterol
- Lean body mass, *see* Fat-free mass
- Lean subjects, *see* Non-obese subjects
- Left ventricular hypertrophy (LVH), hypertension with, BNPs during ergometric exercise by patients with, 1326-1329
- Leprechaunism, severe resistance to insulin and IGF-I in, due to two mutations of tyrosine kinase domain of insulin receptor gene, 1493-1500
- Leucine
 familial hypoglycemia sensitive to, with concomitant hyperammonemia, 957-960
 MH 7777 effects on concentrations of, 851
- Leukemia, T-cell, cachexia induced by, 645-651
- Leukocyte membrane fatty acids (FAs), effects of parenteral fish oil on leukotriene-synthesizing capacity and composition of, in postoperative trauma, 1208-1213
- Leukotriene (LT), effects of parenteral fish oil on leukotriene-synthesizing capacity in postoperative trauma, 1208-1213
- Leydig cells, OA inhibiting cholesteryl esterase and cholesterol utilization for T synthesis in, 293-299
- LH, *see* Luteinizing hormone
- LHRH (D-Trp-6-luteinizing hormone-releasing hormone; Triptorelin) for severely hirsute hyperandrogenic women, 25-27
- Lingual factors, effects of, on ODC activity in jejunal mucosa after feeding, 1284-1287
- Linoleic acid, *see* Safflower oil
- Lipase, *see* Hepatic lipase activity; Hormone-sensitive lipase; Lipoprotein lipase
- Lipid(s)
 effects of, on DHEA in morbidly obese adolescents, 1011-1015
 effects of omega-FAs and fenofibrate on hemorrhheological parameters and, in FDL and FHTG, 1305-1311

Lipid(s) (Continued)

- lipid metabolic risk markers for CHD and blood pressure in non-obese premenopausal women of different racial origins, 328-333
- in NIDDM, vanadyl sulfate effects on metabolism of, 1130-1136
- oxidation of, effects of CHO ingestion on, 1239
- plasma, *see* Plasma lipids
- PP, effects of fasting on, in IDDM, 1036
- serum, *see* Serum lipids
- see also* Dietary fat; Dyslipidemia; Fatty acids; Hyperlipidemia; Lipid peroxidation; Normolipidemic men; Phospholipid(s)
- entries beginning with elements: Adip-, Lip- and specific lipids*
- Lipid peroxidation**
 - antioxidant effects of 4-hydroxyestrone and 17 α -dihydroequilin on, 411-414
 - in NIDDM Mexican-Americans and non-Hispanic whites, 876-881
- Lipogenesis**, GH effects on uptake of, 39
- Lipolysis**
 - in DM, DKA, and normal subjects, relationship between 6-keto-PGF_{1 α} and PGE₂ production and, 694-695
 - GH effects on, 39
 - VS effects on, 1133
 - see also* Antilipolytic effects
- Lipolytic enzymes** in CAD, 1377-1378
- Lipoprotein (Lp)**
 - estrogen effects on concentrations of, 891-892
 - of myristate, palmitate, and stearate Lp in normolipidemic men, comparative metabolism of, 1109-1118
 - plasma, *see* Plasma lipoprotein
 - serum, *see* Serum lipoprotein(s)
 - size of, in IDDM, 1267-1272
 - see also* Apolipoprotein(s); High-density lipoprotein(s); Intermediate-density lipoprotein; Intermediate-density lipoprotein-cholesterol; Lipoprotein(a); Lipoprotein B-phospholipids; Lipoprotein lipase activity; Low-density lipoprotein(s)
- Lipoprotein (Lp) in NIDDM**
 - postprandial Lp metabolism in normotriglyceridemic NIDDM, apo E polymorphism influence on, 63-71
 - size of, 1267-1272
- Lipoprotein(a) [Lp(a); high-density lipoprotein₁]**
 - cardiovascular fitness, body composition and, affecting fibrinolysis, 1427-1433
 - GH therapy effects on, *see* Lipoprotein(a), GH therapy effects on
 - in glomerular proteinuria, 726
 - in IDDM, *see* Lipoprotein(a) in IDDM
 - in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
 - serum, long-term IGF-I therapy effects on, in Laron syndrome, 1263-1266
 - size of, in NIDDM, 1269
 - and urinary excretion of E₂ and T, 281, 282
- Lipoprotein(a) [Lp(a); high-density lipoprotein₁], GH therapy effects on, 1017**
 - in FH, 1415-1421
- Lipoprotein(a) [Lp(a); high-density lipoprotein₁] in IDDM**
 - progression of microalbuminuria and, 1103, 1104
 - size of, 1269
- Lipoprotein B (LpB)-phospholipids (PLs), choline-containing, intraperitoneal insulin effects on, in IDDM, 430-434**
- Lipoprotein lipase (LPL)**
 - in CAD, 1378
 - milk, VLDLs in uremia as poor substrates for, 686-690
 - see also* Lipoprotein lipase activity

Lipoprotein lipase (LPL) activity

- effects of GH therapy for GH-deficient men on, 370-377
- postheparin, relationship of plasma TGs, HDL-C, and apo B to, dependent on apo E polymorphism, 261-267
- Liquid chromatography-mass spectrometry with atmospheric pressure chemical ionization interface system (LC/APCI-MS), N-acetylcystathionine and cyclic cystathionine sulfoxide in cystathioninuria identified with, 1312-1316**
- Lithium, *see* Erythrocyte membrane sodium-lithium countertransport**
- Liver**
 - effects of parasympathetic denervation of, on glucose kinetics, 987-991
 - in elderly subjects, ³¹P magnetic resonance spectroscopy to assess effects of nutritional status and inflammatory state of, 1059-1061
 - functional mass of, plasma flow and, in acromegaly before and after long-term octreotide therapy, 109-113
 - weight of, in nephrotic syndrome, 823, 824
 - see also* *entries beginning with element: Hepat-*
- Long-acting natriuretic peptides (LANPs), circadian relationships between serum Ca, serum phosphate, and circulating, 1021-1028**
- Long-chain fatty acids (FAs), metabolism of, 166**
- Long-term effects**
 - of 5-year overfeeding in identical twins, 1042-1050
 - of full-fat or reduced-fat diet, on EE and substrate oxidation in non-obese subjects, 1004-1010
 - of GnRH in severely hirsute hyperandrogenic women, 25-27
- Long-term exercise, effects of, on prevention of NIDDM, 475-480**
- Long-term sucrose (S)-rich diet, effects of, on endocrine pancreas in normal subjects, 1527-1532**
- Long-term therapy**
 - with ACX potentiating GH response to GHRH by decreasing serum FFAs in obese men, 594-597
 - with IGF-I, effects of, on serum Lp(a) in Laron syndrome, 1263-1266
 - with octreotide, functional liver mass and plasma flow in acromegaly before and after, 109-113
 - with trandolapril and verapamil, 537-539
- Lovastatin, effects of cholestyramine and, on plasma sterol levels in sitosterolemic homozygous girl and her sitosterolemic heterozygous father, 673-679**
- Low-density lipoprotein(s) (LDLs; β -lipoproteins)**
 - in hyperlipidemia, 894
 - low-fat diet effects on, in sitosterolemia, 674
 - of normolipidemic men, myristate, palmitate, and stearate metabolism and, 1109
 - oxidation of, *see* Oxidation, LDL
 - peroxidation of, antioxidant effects of 4-hydroxyestrone and 17 α -dihydroequilin on, 411-414
 - relative effects of high SFA levels in meat, dairy products, and tropical oils on serum Lps and degradation of, by mononuclear cells in men, 550-558
 - size of, in NIDDM, 1267-1272
 - see also* Familial dysbetalipoproteinemia; Familial hypobetalipoproteinemia; Low-density lipoprotein-cholesterol; Low-density lipoprotein receptor(s) in hyperlipidemia; Low-density lipoprotein receptor gene; Very-low-density lipoprotein(s)
- Low-density lipoprotein(s) (LDLs; β -lipoproteins) in IDDM**
 - progression of microalbuminuria and, 1103, 1104
 - size of, 1267-1272

- Low-density lipoprotein-cholesterol (LDL-C)
 AAS abuse effects on, 845
 in CAD, 1378-1380
 in CHD, *see* Low-density lipoprotein-cholesterol in CHD
 exercise and, *see* Low-density lipoprotein-cholesterol, exercise and
 fasting plasma, and hyperinsulinemia associated with VPCs, 1250-1252
 in FHLB, 1297, 1302
 in FHTG and FDL, 1308
 fibrinolytic potential and, 1429
 GH therapy effects on, *see* Low-density lipoprotein-cholesterol, GH therapy effects on
 GH therapy effects on
 in glomerular proteinuria, 726
 in high SFA diet, 553, 555
 hydrogenated fat diet effects on, 244
 in hyperlipidemia, 892
 in IDDM, *see* Low-density lipoprotein-cholesterol in IDDM
 and insulin effects on levels of circulating vitamin E, 999, 1000
 nandrolone decanoate effects on concentration of, 465
 in NIDDM, *see* Low-density lipoprotein-cholesterol in NIDDM
 in obese adolescents, *see* Low-density lipoprotein-cholesterol in obese adolescents
 oral albuterol effects on, 714
 palmitic and stearic acid effects on, 146
 pancreas transplantation effects on, 858
 plasma, *see* Plasma low-density lipoprotein-cholesterol
 and relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity, 263
 serum, *see* Serum low-density lipoprotein-cholesterol
 in uremia, 688, 689
 and urinary excretion of E₂ and T, 281-283
 in visceral obesity-insulin resistance-dyslipidemic syndrome, 885, 886
see also Very-low-density lipoprotein-cholesterol
 Low-density lipoprotein-cholesterol (LDL-C), exercise and diet effects on glucose homeostasis and serum lipid levels with exercise, 436
 exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 797-803
 Low-density lipoprotein-cholesterol (LDL-C), GH therapy effects on
 in FH, 1415-1421
 in GH-deficient men, 372
 and peripheral conversion of T₄ to T₃, 1017
 Low-density lipoprotein-cholesterol (LDL-C) in CHD
 effects of high- versus low-glycemic CHOs on, 671
 metabolic risk markers for CHD, BP, and LDL-C in non-obese premenopausal women, 330
 Low-density lipoprotein-cholesterol (LDL-C) in IDDM
 intraperitoneal insulin effects on, 432
 Lp, apo, and LDL size and, 1268, 1269
 in nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
 Low-density lipoprotein-cholesterol (LDL-C) in NIDDM
 Lp, apo, and LDL size and, 1268, 1269
 in normotriglyceridemic NIDDM, 64, 67
 plasma, role of AT loss in exercise-induced improvement in, 1384
 Low-density lipoprotein-cholesterol (LDL-C) in obese adolescents, 235
 insulin-resistant, 909-911
 in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
 Low-density lipoprotein (LDL) receptor(s) in hyperlipidemia
 adenoviral delivery of, HDLs and, 1447-1457
 estrogen increasing apo B-independent catabolism of, 889-896
 Low-density lipoprotein (LDL) receptor gene, GH and normalization of expression of, in hypothyroidism, 680-686
 Low-fat diet
 effects of, on EE and substrate oxidation in healthy non-obese subjects, 1004-1010
 effects of, on plasma sterol level in sitosterolemia, 674
 Low-glycemic carbohydrates (CHOs), effects of high- versus, on insulin and glucose response in CHD, 669-672
 Low-nicotine cigarette smoking, high- versus, impact of, on REE, 923-926
 Loxiglumide, effects of, on CCK, 198
 Lp, *see* Lipoprotein
 Lp(a), *see* Lipoprotein(a)
 LpB (lipoprotein B)-PLs (phospholipids), choline-containing, intraperitoneal insulin effects on, in IDDM, 430-434
 LPC (lysophosphatidylcholine), expression and production of MCP-1 mRNA stimulated by, in vascular endothelial cells, 559-564
 LPL, *see* Lipoprotein lipase
 LT (leukotriene), effects of parenteral fish oil on leukotriene-synthesizing capacity in postoperative trauma, 1208-1213
 Lungs
 of male and female subjects, interaction of antioxidant defense system of, with alcohol, Cu, and dietary CHOs, 49-56
 pulmonary effects of oral albuterol, 713-714
 Luteinizing hormone (LH)
 in Bardet-Biedel syndrome children, 1232, 1233
 ET-1 impact on basal and stimulated concentrations of, in men with and without nifedipine pretreatment, 658-661
 in SCI women, 718-722
 serum, *see* Serum luteinizing hormone
see also Luteinizing hormone in hirsute women
 Luteinizing hormone (LH) in hirsute women
 BMD and, 516
 GnRH effects on, in severely hirsute hyperandrogenic women, 25
 in obese hirsute women, 72-75
 Luteinizing hormone-releasing hormone (LHRH) for severely hirsute hyperandrogenic women, 25-27
 LVH (left ventricular hypertrophy), hypertension with, BNP during ergometric exercise by patients with, 1326-1329
 Lymphocytes, stress hormone effects on protein synthesis in, in normal adult subjects, 1388-1394
 Lysine, MH 7777 effects on concentrations of, 851
 Lysophosphatidylcholine (LPC), expression and production of MCP-1 mRNA stimulated by, in vascular endothelial cells, 559-564
 β (beta)₂-M, *see* β_2 -Microglobulin
 Macrophages
 activation of NADPH oxidase in LDL oxidation mediated by, 1069-1079
 response of, to CSF-1 in hyperglycemia, 1125-1129
 Macrovascular disease, hyperhomocysteinemia following methionine load in NIDDM and, 133-135
 Magnesium (Mg)
 glucose metabolism in adipocytes and deficiency in, 838-843
 serum, oral albuterol effects on, 714, 716
³¹P Magnetic resonance spectroscopy to assess nutritional status and inflammatory state effects on liver of elderly subjects, 1059-1061

Male subjects

- interactions of lung antioxidant defense system with alcohol, Cu, and dietary CHOs, 49-56
- pubertal, androgen regulation of GHBP in, 1521-1526
- see also* Boys; Men
- Malnutrition, protein and TNF as determinants of plasma concentrations of IGF-1, albumin, and their hepatic mRNAs in, 1273-1276
- Malondialdehyde (MDA), level of cICAM-1, HbA_{1c} and, in NIDDM, oxidative stress and, 498-501
- Malonyl coenzyme A (CoA) in obese salt-sensitive subjects, pioglitazone effects on, 519-525
- Mannitol, effects of, on GFR, 1349
- MAP (mitogen-activated protein) kinase, IGF-I-stimulated activity of, 1479
- Mass isotopomer distribution analysis (MIDA) of glucose with [2-¹³]glycerol, 897-901
- Mass spectrometry with atmospheric pressure chemical ionization interface system, liquid chromatography-, *N*-acetylcystathionine and cyclic cystathionine sulfoxide in cystathioninuria identified with, 1312-1316
- Maternally inherited diabetes and deafness (MIDD), insulin resistance associated with, 526-531
- Mauritian subjects, nondiabetic Indian, Creole, and Chinese, relationship of insulin resistance to weight gain in, 627-633
- Maximal exercise, and pivalic acid-induced carnitine deficiency, 1502
- MBHA (medial basal hypothalamic ablation), effects of, on EtOH-induced PRL release, 1332
- MBHD (medial basal hypothalamic deafferentation), effects of, on EtOH-induced PRL release, 1331-1332
- MCP-1 (monocyte chemoattractant protein-1) mRNA (messenger ribonucleic acid), LPC stimulating expression and production of, in vascular endothelial cells, 559-564
- MCTs, *see* Medium-chain triglycerides
- MDA (malondialdehyde), level of cICAM-1, HbA_{1c} and, in NIDDM, oxidative stress and, 498-501
- Meat, relative effects of high SFA levels in dairy products, tropical oils and, on serum Lps and degradation of LDLs by mononuclear cells in men, 550-558
- Medial basal hypothalamic ablation (MBHA), effects of, on EtOH-induced PRL release, 1332
- Medial basal hypothalamic deafferentation (MBHD), effects of, on EtOH-induced PRL release, 1331-1332
- Medium-chain triglycerides (MCTs)
 - dicarboxylic aciduria due to, differentiated from that due to abnormal FA oxidation and fasting in children, 162-167
 - effects of CHOs and supplementation with, on CHO metabolism during prolonged exercise, 915-921
- Men
 - Chinese, urinary excretion of T and E₂ in, serum Lp concentrations and, 279-284
 - ET-1 impact on basal and stimulated concentrations of LH, FSH, TSH, GH, ACTH, and PRL in, with and without nifedipine pretreatment, 658-661
 - exercising, *see* Exercise; Older exercising men
 - GH therapy for, *see* Growth hormone, effects of therapy with, for men
 - healthy Swedish and Indian, CT-determined body composition of, in relation to CV risk factors in, 634-644
 - HIV-infected, anterior pituitary-and pituitary-dependent target organ function in, 738-746
 - normolipidemic, Lp metabolism of myristate, palmitate, and stearate in, 1109-1118
 - obese, *see* Men, obese
 - older, *see* Older men

Men (Continued)

- oral albuterol effects on serum lipids and CHO metabolism in, 712-717
- plasma HDL-C as correlate of visceral obesity-insulin resistance-dyslipidemic syndrome in, 882-888
- regional FFA kinetics contributing to postabsorptive FFA flux in, 662-666
- relative effects of high SFA levels in meat, dairy products, and tropical oils on serum Lps and LDL degradation by mononuclear cells in, 550-558
- young, *see* Young adults; Young men
- see also* Father; Sex and specific conditions
- Men, obese
 - ACX potentiating GH response to GHRH by decreasing serum FFAs in, 594-597
 - nondiabetic, CPBR in, 168-173
 - see also* Obesity
- Menstrual history
 - of young hirsute women, current bone mineral density and, 515-518
 - see also* Postmenopausal subjects; Premenopausal women
- Mental stress, experimentally induced, autonomically mediated physiological responses to, in adolescent boys, IRS and, 614-621
- Mesangial cells, posttranscriptional effects of glucose on proteoglycan mRNA expression in, 1136-1145
- Messenger ribonucleic acid, *see* mRNA
- Metabolic parameters
 - HDL relation to, and severity of CAD, 1375-1382
 - see also* specific metabolic parameters
- Metabolic rate, *see* Resting metabolic rate
- Metabolic risk factors
 - abdominal AT, race and, 1119-1124
 - for CHD, and blood pressure in non-obese premenopausal women of different racial origins, lipid and CHO as markers for, 328-333
 - see also* specific risk factors
- Met-enkephalin, plasma, in IDDM and NIDDM, autonomic neuropathy and, 1065-1068
- Metformin for fructose-hypertensive subjects, effects of, on vascular reactivity, 1053-1055
- Methionine
 - hyperhomocysteinemia following load with, in NIDDM and macrovascular disease, 133-135
 - MH 7777 effects on concentrations of, 851
- Mexican-Americans, NHWs compared with
 - on gastric emptying of beer, 1174-1178
 - on plasma oxidizability, 876-881
- Mg, *see* Magnesium
- MH 7777 (Morris hepatoma 7777), reduced immune function and reduced splenocyte metabolism in subjects implanted with, 848-855
- MI (myocardial infarction) in NIDDM Mexican-Americans and non-Hispanic whites, 878-879
- Microalbuminuria
 - in IDDM, apo B as predictor of progression of, 1101-1107
 - in NIDDM, cardiovascular risk factors and RBC membrane SLC and, 963
- β_2 (beta₂)-Microglobulin (β_2 M)
 - serum, in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
 - urinary excretion of, in infancy, 510-514
- MIDA (mass isotopomer distribution analysis) of glucose with [2-¹³]glycerol, 897-901

- MIDD (maternally inherited diabetes and deafness), insulin resistance associated with, 526-531
- Milk lipoprotein lipase (LPL), VLDLs in uremia as poor substrates for, 686-690
- MIS (Mullerian inhibiting substance), reduced EGF receptor phosphorylation by, 190-195
- Mitochondria
function of, in skeletal muscle of normal and STZ-DM subjects, effects of exercise on, 810-816
liver and kidney, in nephrotic syndrome, 823, 824
- Mitogen-activated protein (MAP) kinase, IGF-I-stimulated activity of, 1479
- Mitogen responses to MH 7777, 851, 852
- Mld-STZ (multiple low-dose streptozotocin), L-NMMA effects on mononuclear splenocytes and NO generation with, 940-946
- MNCV, *see* Motor nerve conduction velocity
- Moderate hypercholesterolemia, dietary hydrogenated fat effects on C synthesis and LDL oxidation in, 241-247
- Moderately atherogenic diet, nandrolone decanoate effects on plasma lipids and coronary arteries of female subjects on, 463-468
- Monocyte chemoattractant protein-1 (MCP-1) mRNA (messenger ribonucleic acid), LPC stimulating expression and production of, in vascular endothelial cells, 559-564
- L-N^G-Monomethyl-arginine (L-NMMA), effects of, on mononuclear splenocytes and NO generation with mld-STZ, 940-946
- Mononuclear cells, relative effects of high SFA levels in meat, dairy products, and tropical oils on serum Lps and LDL degradation by, in men, 550-558
- Mononuclear splenocytes (MSs), L-NMMA effects on NO generation and, with mld-STZ, 940-946
- Monophosphate, *see* AMP
- Monosodium glutamate (MSG), ratio of urinary excretion of C-peptides to, in subjects at high risk for IDDM, 874, 875
- Monounsaturated fatty acids (MUFAs)
in hydrogenated fat diet, 242
and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
relationship between hyperinsulinemia and, 224-226
- Morbid obesity
adolescents with, effects of weight, body composition, lipids, and insulin resistance on DHEA in, 1011-1015
in PWS, 1514-1520
- Morphology, changes in endocrine pancreas, due to long-term sucrose-rich diet in normal subjects, 1527-1532
- Morphometry
of nerves, tolrestat effects on, following crush injury in STZ-DM, 1191, 1193
of pancreas, long-term sucrose-rich diet and, 1530
- Morris hepatoma 7777 (MH 7777), reduced immune function and reduced splenocyte metabolism in subjects implanted with, 848-855
- Motor nerve conduction velocity (MNCV)
Na⁺/K⁺ ATPase and, *see* Na⁺/K⁺ ATPase, MNCV and
of peripheral nerves in STZ-DM, sorbinil and ALC effects on, 902-907
tolrestat effects on, following crush injury in STZ-DM, 1189-1192
- mRNA (messenger ribonucleic acid)
FBPase, in obese NIDDM subjects, 624, 625
GLUT1 and GLUT3, in peripheral nerve, 1468
hepatic, *see* Hepatic mRNA
MCP-1 monocyte, LPC stimulating expression and production of, in vascular endothelial cells, 559-564
mRNA (messenger ribonucleic acid) (*Continued*)
proteoglycan, posttranscriptional effects of glucose on expression of, in mesangial cells, 1136-1145
RA receptor, 302-303
MS(s) (mononuclear splenocytes), L-NMMA effects on NO generation and, with mld-STZ, 940-946
MSG (monosodium glutamate), ratio of urinary excretion of C-peptides to, in subjects at high risk for IDDM, 874, 875
M16209 [1-(bromobenzo[b]furan-2-ylsulfonyl)hydantoin], effects of, on insulin sensitivity, 1095-1100
Mucosa, intestinal
jejunal, ODC activity in, after food intake, lingual factors in, 1284-1287
of small intestine, endotoxemia and sepsis effects on polyamine metabolism in, 28-33
MUFAs, *see* Monounsaturated fatty acids
Mullerian inhibiting substance (MIS), reduced EGF receptor phosphorylation by, 190-195
Multiple cardiovascular (CV) risk factors, adolescent obesity associated with adult obesity and, 235-240
Multiple low-dose streptozotocin (mld-STZ) subjects, L-NMMA effects on mononuclear splenocytes and NO generation in, 940-946
Multiple trauma subjects on TPN, effects of GH therapy on hyperglycemia in, 450-456
Muscarinic receptor antagonist, effects of, on CCK, 198
Muscle
cells of vascular smooth, nonenzymatic glycation of fibronectin impairing adhesive and proliferative properties of, 285-292
effects of exercising with pivalic acid-induced deficiency in muscle carnitine, 1502
effects of GH administration and resistance exercise by older men on strength of, 256
skeletal, *see* Skeletal muscle
see also Muscle action potentials; Muscle cells; Muscle protein; Myocytes and entries beginning with terms: Intramuscular, Myocardial
Muscle action potentials, compound, tolrestat effects on, following nerve crush injury in STZ-DM, 1189-1195
Muscle cells, basal and insulin-stimulated glucose transport in, TNF- α effects on, 1089-1094
Muscle protein
skeletal, stress hormone effects on synthesis of, in albuminuria, 1388-1394
synthesis and degradation of, in anesthesia, tracer kinetics in measurement of, 1279-1283
Mutations of tyrosine kinase domain of insulin receptor gene, severe resistance to insulin and IGF-I due to two, in leprechaunism, 1493-1500
Myocardial 1,2-diacylglycerol (1,2-DAG), insulin effects on 774-781
Myocardial infarction (MI), and plasma oxidizability in NIDDM Mexican-Americans and NHWs, 878, 879
Myocardial interstitial glucose, hyperglycemia effects on glucose uptake and, during ischemia, 542-549
Myocytes, vascular, activity and phosphorylation of Na⁺/H⁺ exchanger in, in spontaneous hypertension, glucose effects on, 114-119
myo-inositol
L-fucose effects on, 231-232
in STZ-DM, *see: myo*-inositol in STZ-DM
myo-inositol in STZ-DM
ALC deficiency and altered Na⁺/K⁺ ATPase activity, MNCV, and nerve content of, 865-871

- myo*-inositol in STZ-DM (*Continued*)
 effects of supplementation with sorbinil and, on polyphosphoinositide turnover in peripheral nerves of STZ-DM subjects, 320-327
- Myristate, Lp metabolism of, in normolipidemic men, 1109-1118
- N (nitrogen)
 balance of, in multiple trauma, 453
see also Urea nitrogen in NIDDM
- Na (sodium)
 increased erythrocyte Ca uptake and influx of, in hyperthyroidism, erythrocyte membrane phospholipid level and, 707-711
 obese subjects sensitive to, effects of pioglitazone on malonyl coenzyme A in, 519-525
 renal handling of, intrarenal glucagon action on, 383-388
see also Erythrocyte membrane sodium-lithium countertransport; Na^+/H^+ exchanger; Na^+/K^+ ATP; Na^+/K^+ ATPase; Natriuretic peptides; Urinary excretion, Na
- Na^+/H^+ exchanger (NHE), glucose effects on activity and phosphorylation of, in vascular myocytes, 114-119
- Na^+/K^+ (sodium/potassium) ATP (adenosine triphosphate), concentration of, in erythrocytes of IDDM and NIDDM subjects, 927-934
- Na^+/K^+ (sodium/potassium) ATPase (adenosine triphosphatase) erythrocyte membrane, low activity of, in Northeast Thais, 804-810
 turnover of erythrocyte, in IDDM and NIDDM, 927-934
see also Na^+/K^+ ATPase, MNVC and
- Na^+/K^+ (sodium/potassium) ATPase (adenosine triphosphatase), MNVC and
 ALC deficiency and altered nerve *myo*-inositol content, MNCV, and activity of, in STZ-DM, 865-871
 L-fucose and reduced MNCV, 229-234
- Na/Li (sodium-lithium) countertransport, *see* Erythrocyte membrane sodium-lithium countertransport
- NADPH (nicotinamide adenine dinucleotide phosphate) oxidase, activation of, in macrophage-mediated oxidation of LDL, 1069-1079
- Nandrolone decanoate, effects of, on plasma lipids and coronary arteries in female subjects on moderately atherogenic diet, 463-468
- Natriuretic peptides
 brain, during ergometric exercise by hypertensive patients with LVH, 1326-1329
see also Atrial natriuretic peptides
- Natural killer (NK) cells, activity of, in MH 7777, 850-851
- NE, *see* Norepinephrine
- NEFAs, *see* Nonesterified fatty acids
- Negative effect, dominant, of kinase-defective IR on IGF-I-stimulated signaling in fibroblasts, 1474-1482
- Nephropathy in Japanese NIDDM subjects, polymorphism of ACE and AGN genes with, 218-222
- Nephrotic syndrome, glycerophospholipids in, 822-826
- Nerve(s)
 ALC deficiency in altered Na^+/K^+ ATPase activity, MNCV, and *myo*-inositol content of, 865-871
 tolrestat effects on regeneration of, in STZ-DM after crush injury, 1189-1195
see also Peripheral nerves in STZ-DM, sorbinil effects on
- Nerve conduction velocity, *see* Motor nerve conduction velocity
- Nervous system, *see* Autonomic nervous system; Autonomically mediated physiological responses; Denervation; Motor nerve conduction velocity; Nerve(s); Neuropathy; Neurovascular effects; Peripheral nerves; Sympathetic nervous system
- Neuropathy, autonomic, plasma met-enkephalin in IDDM and NIDDM and, 1065-1068
- Neurovascular effects of STZ-DM, rapid reversal of, with aminoguanidine, 1147-1152
- Neutral sterols, fecal excretion of, in sitosterolemia, 675
- NH_3 (ammonia), splenocyte, MH 7777 effects on metabolism of, 853
- NH_4 (ammonium), familial leucine-sensitive hypoglycemia with concomitant hyperammonemia, 957-960
- NHE (Na^+/H^+ exchanger), glucose effects on activity and phosphorylation of, in vascular myocytes, 114-119
- NHWs, *see* Mexican-Americans, NHWs compared with
- Nicotinamide adenine dinucleotide phosphate (NADPH) oxidase, activation of, in macrophage-mediated oxidation of LDL, 1069-1079
- Nicotine, *see* Smoking
- NIDDM, *see* Non-insulin-dependent diabetes mellitus
- Nifedipine, ET-1 impact on basal and stimulated concentrations of LH, FSH, TSH, GH, ACTH, and PRL in men with and without pretreatment with, 658-661
- Nitric oxide (NO), L-NMMA effects on mononuclear splenocytes and on generation of, with mld-STZ, 940-946
- Nitric oxide (NO) synthase, inhibition of, with aminoguanidine in rapid reversal of neurovascular effects of STZ-DM, 1147-1152
- Nitrogen, *see* N
- NK (natural killer) cells, activity of, in MH 7777, 850-851
- L-NMMA (L- N^G -monomethyl-arginine), effects of, on mononuclear splenocytes and NO generation with mld-STZ, 940-946
- NO, *see* Nitric oxide; Nitric oxide synthase
- Nondiabetic subjects
 Creole, Indian, and Chinese Mauritian, relationship of insulin resistance to weight gain in, 627-633
 hyperinsulinemic, voglibose effects on dyslipidemia and insulin sensitivity in, 731-737
 intramuscular TGs and muscle insulin sensitivity in, 947-950
 Na^+/K^+ ATPase turnover and Na^+/K^+ ATP concentration in erythrocytes of, 927-934
 obese, cephalic-phase insulin response in, 168-173
 PP changes in HDL composition and subfraction distribution in, 1034-1041
 relationship between plasma PL SFAs and hyperinsulinemia in, 223-228
- Nonenzymatic glycation of fibronectin impairing adhesive and proliferative properties of vascular smooth muscle cells, 285-292
- Nonesterified fatty acids (NEFAs)
 CHO ingestion effects on, 1236-1238
 effects of plasma E and NE concentrations on, 1216-1218
 fasting, and intramuscular TG content, 949
 octreotide effects on, in IDDM, 214
- Nonhirsute women
 impact of obesity on hormonal parameters in, 72-75
 young, current bone mineral density and menstrual history of, 515-518
- Non-Hispanic whites, *see* Mexican-Americans, NHWs compared with
- Non-insulin-dependent diabetes mellitus (NIDDM; type II diabetes mellitus)
 changes in PL composition of PMN leukocyte, erythrocyte, and platelet membranes in, 57-62
 exercise and, *see* Exercise in NIDDM
 glizalide potentiating suppression of HGP in, 1196-1202
 glucose in, *see* Glucose in NIDDM

- Non-insulin-dependent diabetes mellitus (NIDDM; type II diabetes mellitus) (*Continued*)
 HbA_{1c} in, *see* HbA_{1c} in NIDDM
 hyperhomocysteinemia following methionine load in macrovascular disease and, 133-135
 insulin in, *see* Insulin in NIDDM
 in Japanese subjects, *see* Japanese non-insulin-dependent diabetes mellitus subjects, polymorphism in
 lack of relationship between urinary albumin excretion and insulin resistance in, 1062-1064
 Lp, apo, and LDL size in, 1267-1272
 normotriglyceridemic, influence of apo E polymorphism on postprandial Lp metabolism in, 63-71
 obesity with, *see* Non-insulin-dependent diabetes mellitus, obesity and
 plasma met-enkephalin in, autonomic neuropathy and, 1065-1068
 plasma oxidizability in Mexican-Americans and non-Hispanic whites with, 876-881
 PWS and, 1514-1520
 RBC membrane SLC and cardiovascular risk factors in, 961-965
 RBC Na⁺/K⁺ ATPase turnover and Na⁺/K⁺ ATP concentration in, 927-934
 spontaneous, function of alpha cells with partial pancreatectomy as model of, 1360-1367
 urinary excretion in, *see* Urinary excretion in NIDDM
 vanadyl sulfate effects of CHO metabolism in, 1130-1136
- Non-insulin-dependent diabetes mellitus (NIDDM; type II diabetes), obesity and
 CPIR in, 168-173
 genetic factors and, 1288-1295
 impaired regulation of hepatic FBPase in, 622-626
 24-hour pattern of HS in, 1342-1347
 in women, relationship between glucose metabolism and thermogenesis with and without prior exercise in, 747-752
- Nonnephropathic insulin-dependent diabetes mellitus (IDDM) twins, erythrocyte membrane Na/Li countertransport kinetics in 1203-1207
- Non-obese subjects
 DZ effects in, 334-341
 effects of full-fat or reduced-fat diet on EE and substrate oxidation in, 1004-1010
 IGT and pancreatic islet cell function in, 502-510
 interstitial insulin in obese and, 951-956
 urate changes in pubertal non-obese adolescent boys, 203-210
 women, *see* Non-obese women
- Non-obese women
 ACX effects on GH response to GHRH alone or combined with arginine in, 342-350
 premenopausal, of different racial origins, lipid and CHO metabolic risk markers for CHD and BP in, 328-333
- Nonoxidative metabolism, postprandial glucose, in idiopathic reactive hypoglycemia, 606-610
- Norepinephrine (NE)
 in multiple trauma, 453
 and O₂ consumption in heart, hepatomesenteric bed, and bed of young and elderly men, 1487-1492
 plasma, *see* Plasma norepinephrine
 in stress hormone, *see* Stress hormone
 turnover of, and SNS activity, 787-791
- Normal adult subjects
 ANPs in, *see* Normal adult subjects, ANPs in
 CCK release stimulated by oral glucose in, 196-202
 changes in PL composition of erythrocyte membrane, platelet membrane, and polymorphonuclear leukocyte membrane in, 57-62
- Normal adult subjects (*Continued*)
 effects of decreasing plasma FFAs by ACX on hepatic glucose metabolism in, 1408-1414
 effects of long-term sucrose-rich diet on endocrine pancreas in, 1527-1532
 exercise effects on mitochondrial function on skeletal muscle of, 810-816
 hepatic insulin extraction and beta cell activity following dexamethasone administration in, 486-492
 HSL polymorphism in, 862-864
 insulin effects on glucose turnover in, 82-91
 IV γ -glutamyl tyrosine effects on brain tyrosine and catecholamine concentrations in, 126-132
 level of MDA, cICAM-1, and HbA_{1c} in, oxidative stress and, 498-501
 non-obese, effects of full-fat or reduced-fat diet on EE and substrate oxidation in, 1004-1010
 nonoxidative metabolism of postprandial glucose in, 606-610
 pentoxifylline and indomethacin modulating HGP in, 1458-1465
 relationship between AT production of PGI₂, PGE₂, and 6-keto-PGF_{1 α} , plasma insulin level, and BP in DM, DKA and, 691-698
 relationship between plasma PLs, apo B, and HDL-C to postheparin lipase activity dependent on apo E polymorphism in, 261-267
 stress hormone effects on protein synthesis in skeletal muscle, albumin, and lymphocytes in, 1388-1394
see also Men; Women
- Normal adult subjects, ANPs in
 circadian relationships between serum Ca, serum phosphate, and circulating ANPs in, 1021-1028
 modulating circulating ET in, 315-319
- Normolipidemic men, Lp metabolism of myristate, palmitate, and stearate in, 1109-1118
- Normotension in NIDDM, cardiovascular risk factors and RBC membrane SLC and, 963
- Normotriglyceridemia, NIDDM with, influence of apo E polymorphism on postprandial Lp metabolism in, 63-71
- Northeast Thais, low activity of erythrocyte membrane Na⁺/K⁺ ATPase in, 804-810
- Nuclear protein, total hepatic, starvation effects on, 971
- Nutrition, *see* Diet; Nutritional status
- Nutritional status, effects of inflammatory state and, on liver of elderly subjects, ³¹P magnetic resonance spectroscopy to assess, 1059-1061
- O₂ (oxygen)
 consumption of, in heart, hepatomesenteric bed, and brain in young and elderly men, sympathetic nervous activity with, 1487-1492; *see also* VO₂; VO₂max, exercise and
 intrarenal glucagon action on uptake of, 386-387
- OA (oleic acid; *cis*-9-octadecenoic acid), cholesteryl esterase and cholesterol utilization for T synthesis in Leydig cells inhibited by, 293-299
- Obesity
 antilipolytic effects of DZ in, 334-341
 in Bardet-Biedel syndrome children, 1230-1234
 genetic, editing of hepatic apo B RNA in, 1056-1058
 GH response to GHRH in, *see* Acipimox, effects of, on GH response to GHRH in obesity
 HDL-C and, in 10-year-old girls, race and, 469-474
 HF diet-induced hyperglycemia and, effects of different oils on, 1539-1546
 insulin in, *see* Insulin in obesity
 morbid, *see* Morbid obesity

Obesity (*Continued*)

- NIDDM and, *see* Non-insulin-dependent diabetes mellitus, obesity and
- pioglitazone effects on malonyl coenzyme A in obese salt-sensitive subjects, 519-525
- visceral, *see* Visceral obesity
- see also* Adipose tissue; Adolescent obesity; Men, obese; Women, obese
- cis*-9-Octadecenoic acid (oleic acid), cholesteryl esterase and cholesterol utilization for T synthesis in Leydig cells inhibited by, 293-299
- Octanoate
 - effects of, on pancreatic islet TGs and FA oxidation, 984, 985
 - metabolism of, 165-166
- Octreotide therapy
 - effects of, on glucose metabolism and insulin sensitivity in IDDM, 211-217
 - long-term, functional liver mass and plasma flow in acromegaly before and after, 109-113
- ODC (ornithine decarboxylase), activity of, in jejunal mucosa after feeding, lingual factors in, 1284-1287
- OFS (oligofructose), effects of, on fructose impact on hepatic TAG metabolism, 1547-1550
- OGTT, *see* Oral glucose tolerance test
- β -OHB, *see* β -Hydroxybutyric acid
- 3-OHB (3-hydroxybutyrate), octreotide effects on, in IDDM, 214
- 17-OHP (17-hydroxyprogesterone)
 - GnRH effects in severely hirsute hyperandrogenic women on, 25
 - in young hirsute women, 516
- Oil(s)
 - effects of different, on HF diet-induced hyperglycemia and obesity, 1539-1546
 - fish, *see* ω -Fatty acids
 - safflower, *see* Safflower oil
 - tropical, relative effects of high SFA levels in meat, dairy products and, on serum Lps and degradation of LDLs by mononuclear cells in men, 550-558
- Older exercising men
 - effects of GH administration and resistance exercise on insulin sensitivity and secretion during IVGTT in, 254-260
 - serum T and SHBG level increased by exercise in older men, 935-939
- Older men
 - exercising, *see* Older exercising men
 - O₂ consumption in heart, hepatomesenteric bed, and brain of, sympathetic nervous activity with, 1487-1492
- Oleic acid (OA; *cis*-9-octadecenoic acid), cholesteryl esterase and cholesterol utilization for T synthesis in Leydig cells inhibited by, 293-299
- Oligofructose (OFS), effects of, on fructose impact on hepatic TAG metabolism, 1547-1550
- Omega (ω)-fatty acids, *see* ω -Fatty acids
- Opioids, response of endogenous, to exercise in IDDM, 137-142
- Oral albuterol, effects of, on serum lipids and carbohydrate metabolism in men, 712-717
- Oral glucose, CCK release stimulated by, in normal adult subjects and in NIDDM, 196-202
- Oral glucose tolerance test (OGTT)
 - in CHD, effects of high- versus low-glycemic CHOs on, 669-672
 - dexamethasone effects on, 486-492
 - of DPIP-negative subjects, 1336
 - effects of parasympathetic denervation of liver and pancreas on, 987-991
 - in GH-deficient men, effects of GH therapy on, 365-366
 - glucose processing during, 598-605

Oral glucose tolerance test (OGTT) (*Continued*)

- in healthy Indian and Swedish men, 640
- in PWS, 1514-1520
- of subjects with hepatic and peripheral insulin resistance, 1243-1247
- in β -thalassemia major, 652-657
- urapidil effects on, in hypertension, 1226
- voglibose effects on, in nondiabetic hyperinsulinemia, 731-737
- of young women on contraceptive steroids, 834-835
- Organ function, anterior pituitary- and pituitary-dependent target, in HIV-infected men, 738-746
- Organ weight
 - heart, *see* Organ weight, heart
 - IBAT and spleen, and CL316,243 effects on SNS activity, 788
 - kidney, *see* Organ weight, kidney
 - liver, in nephrotic syndrome, 823, 824
- Organ weight, heart
 - and CL316,243 effects on SNS activity, 788
 - pioglitazone effects on, 521, 523
 - in STZ-DM, troglitazone effects and, 1169
- Organ weight, kidney
 - and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
 - in nephrotic syndrome, 823
- Ornithine, MH 7777 effects on concentrations of, 851
- Ornithine decarboxylase (ODC), activity of, in jejunal mucosa after feeding, lingual factors in, 1284-1287
- Orotic acid, effects of *N*-carbamyl glutamate on urinary excretion of, in familial leucine-sensitive hypoglycemia, 959
- Osteoblastic cells, UMR106, effects of vitamin B₁₂ on alkaline phosphatase activity in, and proliferation of, 1443-1446
- Osteoprogenitor cells, bone marrow, effects of vitamin B₁₂ on alkaline phosphatase activity in, and proliferation of, 1443-1446
- Overall obesity, *see* Obesity
- Overfeeding, 5-year, body weight recovery by identical twins after, 1042-1050
- Overweight, *see* Obesity
- Oxidase, activation of NADPH, in macrophage-mediated oxidation of LDL, 1069-1079
- Oxidation
 - CHO, *see* Oxidation, CHO
 - citrate, in prostate epithelial cells, PRL regulating, 442-449
 - decreased PP dietary fat, following high-fat meal in weight-reduced subjects, 174-178
 - glucose, to CO₂ in adipocytes, effects of Mg deficiency on, 839-840
 - LDL, *see* Oxidation, LDL
 - lipid, *see* Oxidation, lipid
 - protein, *see* Oxidation, protein
 - substrate, effects of full- or reduced-fat diet on, in nonobese subjects, 1004-1010
 - see also* Oxidation, FA; Oxidative stress; Oxidizability
- Oxidation, CHO
 - CHO ingestion and, 1238-1239
 - theophylline effects during exercise and, 1156
- Oxidation, FA
 - abnormal, dicarboxylic aciduria due to MCTs differentiated from that due to fasting and, in children, 162-167
 - effects of, on glucose metabolism associated with FA effects on glucose-related beta-cell function, 981-986
 - FFA, and reversal of skeletal muscle glucose transport impaired by dexamethasone, 92-100
 - theophylline effects on, during exercise and, 1156

- Oxidation, LDL
 dietary hydrogenated fat effects on, in moderate hypercholesterolemia, 241-247
 macrophage-mediated, NADPH oxidase activation in, 1069-1079
- Oxidation, lipid
 CHO ingestion and, 1239
see also Lipid peroxidation
- Oxidation, protein
 in HD and renal transplantation, 1319-1322
 in IRH, 608
- Oxidative stress, effects of, on level of MDA, HbA_{1c}, and cICAM-1 in NIDDM, 498-501
- Oxidizability
 plasma, in NIDDM Mexican-Americans and non-Hispanic whites, 876-881
see also Oxidation
- Oxygen, *see* O₂
- P₂ (biphosphate), fructose-2,6-, and regulation of hepatic FBPase in obese NIDDM subjects, 622-626
- PAF-AH (platelet-activating factor-acetylhydrolase) in nephrotic syndrome, 823, 825-826
- PAI (plasminogen activator inhibitor), urapidil effects on, in hypertension, 1223
- PAI-1, *see* Plasminogen activator inhibitor-1
- Palmitate
 effects of, on pancreatic islet TGs and FA oxidation, 984, 985
 metabolism of Lp of, in normolipidemic men, 1109-1118
 plasma, and plasma C and plasma FA synthesis measurement with ²H₂O₂ to determine number of incorporated deuterium atoms, 818, 820
 retinyl, 17 β -estradiol effects on, in postmenopausal women, 829
- Palmitic acid, effects of stearic acid and, on serum lipids, Lps, and plasma CETP activity in young women, 143-149
- Palmitoyltransferase-1, carnitine, OFS effects on, 1548
- Pancreas
 effects of long-term sucrose-rich diet on endocrine, in normal adult subjects, 1527-1532
 effects of parasympathetic denervation of, on glucose kinetics, 987-991
 effects of transplantation of, on plasma Lp distribution and composition, 856-861
see also entries beginning with element: Pancreat-
- Pancreatectomy, partial, alpha cell function with, as model of spontaneous NIDDM, 1360-1367
- Pancreatic islet(s)
 desensitized by exposure to high glucose or carbachol, GLP-1 stimulating insulin secretion but not phosphoinositide hydrolysis from, 273-278
 dysfunctional, in obese women with IGT, 502-510
 paracrine action of corticotropin-like peptides derived from, on regulation of insulin release, 565-570
 RA receptor transcripts and effects of RA and ROH on glucagon secretion in glucagon-secreting cell lines and, 300-305
see also Alpha cells; Beta cells; Pancreatic islet cell antibodies
- Pancreatic islet cell antibodies (Abs), characteristics of subjects positive for, who progressed to IDDM, 310
- PAP (phosphatidate phosphohydrolase), OFS effects on, 1548
- Paracrine action of pancreatic islet-derived corticotropin-like peptides on regulation of insulin release, 565-570
- Paranodal expression of GLUT1 and GLUT3 in peripheral nerve, 1466-1473
- Parasympathetic denervation of liver and pancreas, effects of, on glucose kinetics, 987-991
- Parenteral nutrition, *see* Total parenteral nutrition
- Partial pancreatectomy, function of pancreatic alpha cells in, as model of spontaneous NIDDM, 1360-1367
- Partial thromboplastin time (PTT), activated, in hypercholesterolemic thrombophilia, 967, 968
- Pase (biphosphatase), fructose-1,6-, impaired regulation of hepatic, in obese NIDDM subjects, 622-626
- Pathophysiological concentrations of plasma E and NE, differential effects of physiological versus, on ketone body metabolism and hepatic portal blood flow, 1214-1220
- PCOS (polycystic ovarian syndrome), hormonal parameters in, 72-75
- PCT (portal-caval transposition), hyperinsulinemia and insulin resistance with, 120-125
- Pentoxifylline, indomethacin and, modulating HGP in healthy subjects, 1458-1465
- Peptidase, enteroinsular axis in DPIV-negative subjects, 1335-1341
- Peptides
 paracrine action of pancreatic islet-derived corticotropin-like, on regulation of insulin release, 565-570
see also C-peptides; Natriuretic peptides; Polypeptides *entries beginning with terms: Glucagon-like peptide and specific peptides*
- Peripheral blood lymphocytes, stress hormone infusion on, 1393
- Peripheral conversion of T₄ to T₃, GH effects on serum lipids and Lps and increased, 1016-1020
- Peripheral insulin delivery, portal delivery compared with, in handling of orally delivered glucose, 150-154
- Peripheral insulin resistance, relationship between hepatic, and PAI-1 in Pima Indians, 1243-1247
- Peripheral nerves
 paranodal expression of GLUT1 and GLUT3 in, 1466-1473
see also Peripheral nerves in STZ-DM, sorbinil effects on
- Peripheral nerves in STZ-DM, sorbinil effects on sorbinil and ALC effects on structure, chemistry, and function of, 902-907
 sorbinil and *myo*-inositol supplementation effects on turnover of polyphosphoinositide in, 320-327
- Peroxidation, *see* Lipid peroxidation
- PG, *see* 6-Keto-prostaglandin F₁₀; Prostacyclin; Prostaglandin E₂; Prostaglandin F₁
- pH
 blood, effects of intrarenal glucagon action on, 385
 colonic, acarbose effects on, 1179-1187
- Phenotype
 apo E, varying effects of exercise on serum TC and LDL-C concentrations related to, in boys and young adults, 797-803
 splenocyte, MH 7777 effects on progression of, 850
- Phenylalanine (Phe)
 N[(*trans*-4-isopropylcyclohexyl)-carbonyl]-D-, somatostatin and insulin secretion due to, 184-189
 MH 7777 effects on concentrations of, 851
- Phosphatase, cellular alkaline, vitamin B₁₂ effects on activity of, and on proliferation of bone marrow osteoprogenitor cells and UMR106 osteoblastic cells, 1443-1446
- Phosphate
 serum, circadian relationships between circulating ANPs, serum Ca and, in healthy subjects, 1021-1028
 urinary excretion of, in NIDDM with and without renal insufficiency, 782-786
 xylitol effects on DHAP, GA3P, and inorganic plasma, 1356-1357

Phosphate (*Continued*)

see also ADP; AMP; ATP; Fructose-2,6-bisphosphate; Fructose-6-phosphate; Glucose-6-phosphate; Glycerol-3-phosphate; NADPH oxidase

Phosphohydrolase, phosphatidate, OFS effects on, 1548

Phosphoinositide

effects of supplementation with sorbinil and *myo*-inositol on polyphosphoinositide turnover in peripheral nerves of STZ-DM subjects, 320-327

GLP-1 stimulating insulin secretion but not hydrolysis of, from pancreatic islets desensitized by exposure to high glucose or carbachol, 273-278

Phospholipid(s) (PLs)

ethanolamine, in nephrotic syndrome, 823, 824

in IDDM, see Phospholipid(s) in IDDM

in NIDDM, and changes in composition of erythrocyte, platelet, and polymorphonuclear cell membrane, 57-62

in normolipidemic men, 1110, 1114

OFS effects on, 1548

pancreas transplantation effects on, 859

in postoperative trauma, effects of parenteral fish oil on, 1210-1211

role of erythrocyte membrane level of, in increased erythrocyte Na influx and Ca uptake in hyperthyroidism, 707-711

in uremia, 688, 689

see also Glycerophospholipids; Phospholipid saturated fatty acids

Phospholipid(s) (PLs) in IDDM

and changes in composition in erythrocyte, platelet, and polymorphonuclear cell membrane, 57-62

choline-containing LpB-, intraperitoneal insulin effects on, 430-434

Phospholipid (PL) saturated fatty acids (SFAs), plasma, relationship between hyperinsulinemia and, 223-228

Phosphorylase, glycogen, hyperglycemia and alteration of glucagon ability to increase hepatic glucose production and activate, 481-485

Phosphorylation

activity and, of Na^+/H^+ exchanger in vascular myocytes in spontaneous hypertension, glucose effects on, 114-119

reduced EGF receptor, by MIS, 190-195

see also Autophosphorylation, IR

Phosphatidate phosphohydrolase (PAP), OFS effects on, 1548

PHPT (primary hyperparathyroidism), decreased cortical and increased cancellous bone in, 76-81

Physical activity, see Exercise

Physical training, see Exercise

Physiological concentrations of plasma E and NE, differential effects of pathophysiological versus, on ketone body metabolism and hepatic portal blood flow, 1214-1220

Physiological responses, autonomically mediated, to experimentally induced mental stress in adolescent boys, IRS and, 614-621

Pima Indians, relationship between hepatic and peripheral insulin resistance and PAI-1 in, 1243-1247

Pioglitazone, effects of, on malonyl coenzyme A in obese salt-sensitive subjects, 519-525

Pituitary

acromegalic adenomas of, PKC and cAMP responses, to GH secretion in, 206-210

target organ function dependent on, in HIV-infected men, 738-746

see also Pituitary-ovarian-adrenal axis and entries beginning with terms: Hypothalamus-pituitary

Pituitary-ovarian-adrenal axis in severely hirsute hyperandrogenic women, GnRH therapy effects on, 25-27

Pivalic acid, carnitine deficiency induced by, exercise and, 1501-1507

PK, see Protein kinase

PKA (protein kinase A), glucagon synthesis and secretion induced by, inhibited by glucose, 347-350

PKC, see Protein kinase C

PL(s), see Phospholipid(s)

Plasma, oxidizability of, in NIDDM Mexican-Americans and non-Hispanic whites, 876-881

Plasma adrenomedullin (AM) in acute asthma, 1323-1325

Plasma alanine, effects of *N*-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959

Plasma albumin

in multiple trauma, 451

in nephrotic syndrome, 823

protein and TNF as determinants of concentrations of plasma IGF-1 and, and their hepatic mRNAs in malnourished subjects, 1273-1276

Plasma amino acids

IV γ -glutamyl tyrosine effects on, 129, 130

MH 7777 effects on, 850, 851

radiation therapy effects on, 769

Plasma apolipoprotein A-I (apo A-I)

17 β -estradiol effects on, in postmenopausal women, 828

role of AT loss in exercise-induced improvement in, in NIDDM, 1384

Plasma apolipoprotein B (apo B) in NIDDM, role of AT loss in exercise-induced improvement in, 1384

Plasma cholesterol (C)

in CAD, 1378-1380

DZ effects on, 336

fasting plasma, overfeeding effects on, 1046

measurement of synthesis of, with deuterated water, incorporation of deuterium atoms determined with, 817-821

in nephrotic syndrome, 823

in NIDDM, role of AT loss in exercise-induced improvement in, 1384

total, exercise effects on, 1384

Plasma cholesteryl ester transfer protein (CETP), effects of palmitic and stearic acids on serum lipids, Lps and, in young women, 143-149

Plasma citrulline, effects of *N*-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959

Plasma corticotropin (ACTH; adrenocorticotropin), level of, in men before and after stimulation with CRF following nifedipine and ET-1 treatment, 659

Plasma cortisol, protein effects on levels of, 1485

Plasma C-peptides (connecting peptide)

fasting, CPIR in obese nondiabetic subjects and, 171

gliclazide effects on, in NIDDM, 1197-1198

protein effects on levels of, 1485

Plasma creatinine (Cr) in nephrotic syndrome, 823

Plasma dehydroepiandrosterone sulfate (DHEAS), protein effects on levels of, 1485

Plasma epinephrine (E)

differential effects of physiological versus pathophysiological concentrations of, on ketone body metabolism and hepatic portal blood flow, 1214-1220

radiation therapy effects on, 769

theophylline effects on, during exercise on, 1159

Plasma fatty acids (FAs)

in chronic gastrointestinal disorders, 15, 16

deuterated water measuring synthesis of, determination of incorporated deuterium atoms with, 817-821

- Plasma fatty acids (FAs) (*Continued*)
effects of CHOs and dietary fat supplementation on, during prolonged exercise, 915-921
fasting, in normolipidemic men, 1110
see also Plasma free fatty acids
- Plasma fibrinogen (Fn) in essential hypertension, urapidil effects of, 1221-1229
- Plasma flow
functional liver mass and, in acromegaly before and after long-term octreotide therapy, 109-113
renal intrarenal glucagon action on, 385
- Plasma free fatty acids (FFAs)
DZ effects on, 336
effects of decreasing, by ACX, on hepatic glucose metabolism in normal subjects, 1408-1414
fasting, and hyperinsulinemia associated with VPCs, 1250-1252
glitazide effects on HGP in, NIDDM and, 1197-1198
pioglitazone effects on, 523
radiation therapy effects on, 769
VS effects on, 1133
- Plasma glucagon (G)
in conscious subjects, *see* Plasma glucagon in conscious subjects
effects of early changes in, on GH response to glucose in hyperthyroidism, 1029-1033
glitazide effects on HGP in, NIDDM and, 1197-1198
and renal extraction of glucagon, 386
theophylline effects on, during exercise on, 1159
xylitol effects on, 1356
- Plasma glucagon (G) in conscious subjects
glyburide effects on, 583
stress hormone effects on arterial, 573
- Plasma glucose
L-arabinose effects on, after sucrose ingestion, 1371
arterial, hyperglycemia effects on, during ischemia, 546
body weight and, in STZ-DM, 321
CHO ingestion effects on, 1236-1238
dependency of, on glyburide and GLP-1, 407
DZ effects on, 336
effects of xylitol on, 1356
fasting, *see* Fasting plasma glucose
glitazide effects on HGP in, NIDDM and, 1197
glyburide effects on, in conscious subjects, 581
hormone replacement therapy effects on, 1257
and hyperinsulinemia associated with VPCs, 1250, 1252
in IDDM, progression of microalbuminuria and, 1102
and intramuscular TG content, 949
long-term sucrose-rich diet effects on, 1529
moderate decline in SA and level of, 587-593
in multiple trauma, 451
in obesity, *see* Plasma glucose in obesity
PCT and, 122
and plasma C and FA synthesis measurement with deuterated water, 820
radiation therapy of cancer effects on, 769
smoking and, 1553
in STZ-DM, *see* Plasma glucose in STZ-DM
in β -thalassemia major, 655
thermal injury effects on level of, 1162-1163
trandolapril and verapamil effects on, 537
in untreated NIDDM, starvation effects on concentrations of, 492-497
voglibose effects on, in nondiabetic hyperinsulinemia, 734
- Plasma glucose in obesity
CPIR in obese nondiabetic subjects and, 171, 172
pioglitazone effects on, 520-521
- Plasma glucose in STZ-DM
ALC replacement effects on, 867
and normal subjects, exercise effects on, 811
tolrestat effects on nerve crush injury and, 1191
troglitazone effects on, 1169
- Plasma glutamine, effects of N-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959
- Plasma glycerol
effects of CHO and dietary fat ingestion during prolonged exercise on, 919
radiation therapy effects on, 769
- Plasma growth hormone (GH)
level of, in men before and after stimulation with GHRH following nifedipine and ET-1 treatment, 659
relationship between GHBP, growth rate and, 424-429
- Plasma growth hormone-binding protein (GHBP), effects of T and DHT on, 1523
- Plasma high-density lipoprotein-cholesterol (HDL-C)
as correlate of visceral obesity-insulin resistance-dyslipidemic syndrome in men, 882-888
fasting, and hyperinsulinemia associated with VPCs, 1250-1252
in NIDDM, role of AT loss in exercise-induced improvement in, 1384
- Plasma 3-hydroxybutyrate (3-OHB), exercise effects on, in normal and STZ-DM subjects, 811
- Plasma insulin
L-arabinose effects on, after sucrose ingestion, 1371
CHO ingestion effects on, 1236-1238
DZ effects on, 336
exercise and, *see* Plasma insulin, exercise and
fasting, *see* Fasting plasma insulin
glyburide and, *see* Plasma insulin, glyburide and
hormone replacement therapy effects on, 1257, 1260
hyperglycemia effects on, during ischemia, 546
and hyperinsulinemia associated with VPCs, 1250
moderate decline in SA and level of, 589
in NIDDM, *see* Plasma insulin in NIDDM
pioglitazone effects on, in obese subjects, 520-521
radiation therapy of cancer effects on, 769
relationship between AT production of PGE₂, PGI₂, 6-keto-PGF_{1 α} and, BP in normal, diabetic, and DKA subjects and, 691-698
smoking and, 1553
thermal injury effects on level of, 1162-1163
trandolapril and verapamil effects on, 537
- Plasma insulin, exercise and
exercise effects on, in STZ-DM and normal subjects, 811
theophylline effects during exercise, 1159
- Plasma insulin, glyburide and
glyburide effects on insulin in conscious subjects, 581
glyburide- and GLP-1-dependent plasma insulin, 407
- Plasma insulin-like growth factor-1 (IGF-1)
protein effects on levels of, 1485
protein and TNF role in concentrations of albumin and, and their hepatic mRNAs in malnutrition, 1273-1278
- Plasma insulin in NIDDM
glitazide effects on HGP and, 1197-1198
in spontaneous NIDDM, response of, to arginine, 1361-1363, 1365
starvation effects in untreated NIDDM on concentrations of, 492-497
- Plasma K (potassium)
fasting, and hyperinsulinemia associated with VPCs, 1250-1252
and low activity of erythrocyte membrane Na⁺/K⁺ ATPase, 806

- Plasma lactate, and plasma C and FA synthesis measurement with deuterated water, 819, 820
- Plasma lipids
 exercise effects on, *see* Plasma lipids, exercise effects on
 hydrogenated fat diet effects on, 244
 nandrolone decanoate effects on coronary arteries and, in female subjects on moderately atherogenic diet, 463-468
 in obesity, pioglitazone effects on, 521
- Plasma lipids, exercise effects on, 477
 in NIDDM, role of AT loss in exercise-induced improvement in, 1383-1395
- Plasma lipoprotein (Lp)
 metabolism of, in genetic hypercholesterolemia, 4-11
 pancreas transplantation on distribution and composition of, 856-861
- Plasma low-density lipoprotein-cholesterol (LDL-C)
 fasting, and hyperinsulinemia associated with VPCs, 1250-1252
 in NIDDM, role of AT loss in exercise-induced improvement in, 1384
- Plasma met-enkephalin in IDDM and NIDDM, autonomic neuropathy and, 1065-1068
- Plasma Na (sodium), and low activity of erythrocyte membrane Na^+/K^+ ATPase, 806
- Plasma norepinephrine (NE)
 cancer radiation therapy effects on, 769
 differential effects of physiological versus pathophysiological concentrations of, on ketone body metabolism and hepatic portal blood flow, 1214-1220
 in hypertensive patients with LVH during ergometric exercise, 1328
 theophylline effects on, during exercise on, 1159
- Plasma palmitate, and plasma C and FA synthesis measurement with deuterated water, 819, 820
- Plasma phosphate, inorganic, effects of xylitol on, 1356-1357
- Plasma phospholipid (PL) saturated fatty acids (SFAs), relationship between hyperinsulinemia and, 223-228
- Plasma plasminogen activator inhibitor type 1 (PAI-1), effects of proinsulin and insulin on, in young women on contraceptive steroids, 833-838
- Plasma platelet-activating factor-acetylhydrolase (PAF-AH) in nephrotic syndrome, 825-826
- Plasma prolactin (PRL), level of, in men before and after stimulation with TRH following nifedipine and ET-1 treatment, 660
- Plasma purine bases, glucagon effects on xylitol-induced increase in, 1354-1359
- Plasma pyruvate, and plasma C and FA synthesis measurement with deuterated water, 819, 820
- Plasma renin activity (PRA) in hypertensive patients with LVH during ergometric exercise, 1328
- Plasma sterols, cholestyramine and lovastatin effects on levels of, in sitosterolemia homozygous girl and her heterozygous father, 673-679
- Plasma testosterone (T), protein effects on levels of, 1485
- Plasma thyroxine (T_4) in hyperthyroidism, 709
- Plasma α (alpha)-tocopherol (vitamin E), hydrogenated dietary fat effects on, 245
- Plasma total cholesterol (TC), exercise effects on, 477
- Plasma triglycerides (TGs)
 in CAD, 1378-1380
 DZ effects on, 336
 exercise effects on, 477
 fasting, *see* Fasting plasma triglycerides
 in NIDDM, role of AT loss in exercise-induced improvement in, 1384
- Plasma triglycerides (TGs) (*Continued*)
 pioglitazone effects on, 523
 relation of apo B, HDL-C and, to postheparin LPL activity is dependent on apo E polymorphism, 261-267
- Plasma xylitol, effects of xylitol on, 1356
- Plasmalogens, ethanolamine, in nephrotic syndrome, 823-824
- Plasminogen, levels of, hypercholesterolemic thrombophilia, 967, 968
- Plasminogen activator, tissue, effects of proinsulin and insulin on, in young women on contraceptive steroids, 833-838
- Plasminogen activator inhibitor (PAI), urapidil effects on, in hypertension, 1223
- Plasminogen activator inhibitor-1 (PAI-1)
 and fibrinolytic potential, 1429
 in IRS, 1535, 1536
 plasma, effects of proinsulin and insulin on, in young women on contraceptive steroids, 833-838
 relationship between hepatic and peripheral insulin resistance and, in Pima Indians, 1243-1247
- Platelet-activating factor-acetylhydrolase (PAF-AH) in nephrotic syndrome, 823, 825-826
- Platelet aggregation, effects of high SFA diet on, 554, 556-557
- Platelet buffering capacity in NIDDM, cardiovascular risk factors and RBC membrane SLC and, 962, 963
- Platelet membranes, changes in PL composition of, in IDDM and NIDDM, 57-62
- PMN (polymorphonuclear) leukocyte membranes, changes in PL composition of, in IDDM and NIDDM, 57-62
- Polyamine, endotoxemia and sepsis effects on metabolism of, in mucosa of small intestine, 28-33
- Polycystic ovarian syndrome (PCOS), hormonal parameters in, 72-75
- Polymorphism, *see* Apolipoprotein E polymorphism; Japanese non-insulin-dependent diabetes mellitus subjects, polymorphism in
- Polymorphonuclear (PMN) leukocyte membranes, changes in PL composition of, in IDDM and NIDDM, 57-62
- Polypeptides, characterization of GLUT1 and GLUT3, in peripheral nerve, 1468-1470
- Polyphosphoinositide, turnover of, in peripheral nerves of STZ-DM subjects, effects of sorbinil and *myo*-inositol supplementation on, 320-327
- Polyunsaturated fatty acids (PUFAs)
 in hydrogenated dietary fat, 242
 and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
 relationship between hyperinsulinemia and, 224-226
- Portal blood flow, hepatic, differential effects of pathophysiological versus physiological concentrations of plasma E and NE on KB metabolism and, 1214-1220
- Portal-caval transposition (PCT), hyperinsulinemia and insulin resistance with, 120-125
- Portal insulin delivery, peripheral delivery compared with, in handling of portally delivered glucose, 150-154
- Portal vein alanine, stress hormone effects on, in conscious subjects, 576
- Portal vein glucose in conscious subjects, glyburide effects on, 580
- Portal vein lactate, stress hormone effects on, in conscious subjects, 576
- Postabsorptive flux of FFAs in men and women, kinetics of regional FFAs contributing to, 662-666
- Postheparin lipoprotein lipase (LPL) activity, relationship of plasma TGs, HDL-C, and apo B to, dependent on apo E polymorphism, 261-267

- Postmenopausal subjects
 17 β -estradiol reducing postprandial HDL-C in, 827-832
 hormone replacement therapy effects on cardiovascular risk factors and CHO metabolism in, 1254-1262
- Postoperative trauma, effects of parenteral fish oil on leukotriene-synthesizing capacity and leukocyte membrane FAs in, 1208-1213
- Postprandial (PP) changes in HDL composition and subfraction distribution in IDDM, 1034-1041
- Postprandial (PP) dietary fat oxidation following high-fat meal, diet-induced weight loss and, 174-178
- Postprandial (PP) glucose, nonoxidative metabolism of, in idiopathic reactive hypoglycemia, 606-610
- Postprandial (PP) high-density lipoprotein-cholesterol (HDL-C), 17 β -estradiol reducing, in postmenopausal women, 827-832
- Postprandial (PP) metabolism
 effects of aerobic and resistance exercise on, in weight-reduced subjects, 182
 Lp, in normotriglyceridemic NIDDM, apo E polymorphism influence on, 63-71
- Postprandial (PP) thermogenesis, substrate utilization and, after different CHO ingestion, 1235-1242
- Potassium, *see* K
- PP, *see* entries beginning with term: Postprandial
- PRA (plasma renin activity) in hypertensive patients with LVH during ergometric exercise, 1328
- Prader-Willi syndrome (PWS), glucose and insulin metabolism in, 1514-1520
- Pregnancy, glucose and lactate kinetics during short exercise in, 753-758
- Premature complexes, ventricular, hyperinsulinemia associated with, 1248-1253
- Premenopausal women
 non-obese, of different racial origins, lipid and CHO metabolic risk markers for CHD and BP in, 328-333
 obese, with VAT and SAT, HPA activity and its relationship to AN in, and effects of AVP/CRF stress tests in, 351-356
- Prevention of NIDDM, long-term effects of exercise on, 475-480
- Primary hyperparathyroidism (PHPT), decreased cortical and increased cancellous bone in, 76-81
- PRL, *see* Prolactin
- 17-OH-Progesterone, *see* 17-OHP
- Progression to IDDM, differential beta cell response to glucose, glucagon, and arginine during, 306-314
- Proinsulin
 in CAD, 1379
 effects of, on plasma PAI-1 and t-PA levels in young women on contraceptive steroids, 833-838
 fasting, in β -thalassemia major, 656
- des 31,32 Proinsulin in β -thalassemia major, 656
- Prolactin (PRL)
 in Bardet-Biedel syndrome children, 1232, 1233
 citrate oxidation and m-aconitase in prostate epithelial cells regulated by, 442-449
 ET-1 impact on basal and stimulated concentrations of, in men, with and without nifedipine pretreatment, 658-661
 ethanol action inducing release of, 1330-1334
 GnRH effects on, in severely hirsute hyperandrogenic women on, 25
 in hirsute women, BMD and, 516
 responses of β -endorphin and, to hypoglycemia in well-controlled IDDM, 1434-1440
 in SCI women, 718-722
 serum, *see* Serum prolactin
- Proliferative (and adhesive) properties of VSMCs impaired by nonenzymatic glycation of Fn, 285-292
- Prolonged exercise, CHOs and
 effects of dietary fat supplementation and CHOs on CHO metabolism during prolonged exercise, 915-921
 substrate kinetics of CHO ingestion and CHO loading during prolonged exercise, compared, 415-423
- Prostacyclin (PGI₂), relationship between AT production of PGE₂, 6-keto-PGF_{1 α} and, BP in normal, diabetic, and DKA subjects, and plasma insulin level, 691-698
- Prostaglandin E₂ (PGE₂), relationship between AT production of PGI₂ 6-keto-PGF_{1 α} and, BP in normal, diabetic, and DKA subjects, and plasma insulin level, 691-698
- Prostaglandin F₁ (PGF₁), 6-keto-, relationship between AT production of PGI₂, PGE₂ and, BP in normal, diabetic, and DKA subjects, and plasma insulin level, 691-698
- Prostate epithelial cells, PRL regulating citrate oxidation and m-aconitase in, 442-449
- Protein, 1273-1283
 binding, *see* Growth hormone-binding protein; Insulin-like growth factor binding protein-1; Insulin-like growth factor binding protein-2 mRNA; Insulin-like growth factor binding protein-3
 cholesteryl ester transfer, *see* Cholesteryl ester transfer protein
 effects of moderate increase in, on insulin secretion and DHEAS, 1483-1486
 in glomerular proteinuria, 725
 muscle, *see* Muscle protein
 in NIDDM, *see* Protein in NIDDM
 oxidation of, *see* Oxidation, protein
 receptor, and effects of starvation on T₃ maximal binding capacity for T₃ receptor, 970-973
 TNF and, as determinants of plasma IGF-1 and albumin concentrations and their hepatic mRNAs in malnourished subjects, 1273-1278
 total, in IDDM, blood cell membrane phospholipid composition and, 59
 in uremia, 688, 689
see also Apolipoprotein(s); Lipoprotein; Protein kinase; Protein-1 mRNA; Proteinuria
- Protein kinase (PK)
 mitogen-activated, IGF-I-stimulated activity of, 1479
see also Protein kinase A; Protein kinase C
- Protein kinase A (PKA), glucagon synthesis and secretion induced by, inhibited by glucose, 347-350
- Protein kinase C (PKC)
 effects of inhibitor of, on LPC-induced MCP-1 mRNA expression, 560
 responses of cAMP and, to GH secretion in acromegalic pituitary adenomas, 206-210
 role of, in glucose effects on proteoglycan mRNA expression, 1141-1142
- Protein in NIDDM
 with obesity, level of, and FBPase activity, 624, 625
 total, blood cell membrane PL composition and, 59
- Protein-1 mRNA (messenger ribonucleic acid), monocyte chemoattractant, LPC stimulating expression and production of, in vascular endothelial cells, 559-564
- Proteinuria
 glomerular, serum lathosterol-to-cholesterol ratio is not elevated in, and not associated with improved hyperlipidemia in response to antiproteinuria therapy, 723-730
 in NIDDM with macrovascular disease, 134
see also Albuminuria

- Proteoglycan mRNA (messenger ribonucleic acid), posttranscriptional effects of glucose on expression of, in mesangial cells, 1136-1145
- Prothrombin in FHTG and FDL, omega-FA and fenofibrate effects on, 1306
- Prothrombin time (PT), activated partial, in hypercholesterolemic thrombophilia, 967, 968
- Proximal tubular cell apoptosis induced by glucose loading, 1348-1353
- Psychological stress, IRS and, 1533-1538
- Psychosocial factors
WHR and, in IDDM subjects, 268-272
see also Education level; Income; Race and ethnicity
- PT (prothrombin time), activated partial, in hypercholesterolemic thrombophilia, 967, 968
- PTT (partial thromboplastin time), activated, in hypercholesterolemic thrombophilia, 967, 968
- Puberty
male, androgen regulation of GHBP in, 1521-1526
see entries beginning with term: Adolescent
- PUFAs, *see* Polyunsaturated fatty acids
- Pulmonary function, oral albuterol effects on, 713-714
- Purine bases
glucagon effects on xylitol-induced increase in plasma and urinary excretion of, 1354-1359
see also Uric acid
- PWS (Prader-Willi syndrome), glucose and insulin metabolism in, 1514-1520
- Pyridinium cross-links of collagen, urinary excretion of, in infancy, 510-514
- Pyruvate
in familial leucine-sensitive hypoglycemia, glucose effects on, 958
and glucose cycling by hepatocytes, 104
plasma, and plasma C and FA synthesis measurement with deuterated water, 819, 820
splenocyte, MH 7777 effects on metabolism of, 852
- Pyruvic acid, blood, xylitol effects on, 1358
- RA, *see entries beginning with terms:* Retinoic acid
- Race and ethnicity
abdominal AT distribution, metabolic risk factors and, 1119-1124
CT-determined body composition in relation to CV risk factors in Indian and Swedish men, 634-644
and HDL-C in obese 10-year-old girls, 469-474
insulin resistance in Swedish adolescents, 908-914
lipid and CHO metabolic risk markers for CHD and BP in non-obese premenopausal women of different racial origins, 328-333
low activity of erythrocyte membrane Na^+/K^+ ATPase in Northeast Thais, 804-810
of morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1012
relationship between hepatic and peripheral insulin resistance and PAI-1 in Pima Indians, 1243-1247
relationship of insulin resistance and weight gain in nondiabetic Creole, Chinese, and Indian Mauritians, 627-633
urinary excretion of T and E_2 in Chinese men, serum Lp concentrations and, 279-284
see also Japanese non-insulin-dependent diabetes mellitus subjects, polymorphism in; Mexican-Americans, NHWs compared with
- Radiation therapy of cancer, metabolic response to, 767-773
- RBCs (red blood cells), *see* Erythrocyte(s)
- rCBF (regional cerebral blood flow), effects of acute hypoglycemia on, in IDDM with impaired hypoglycemia awareness, 974-980
- Reactive hypoglycemia, idiopathic, nonoxidative metabolism of postprandial glucose in, 606-610
- Recombinant growth hormone, *see* Growth hormone, effects of therapy with
- Recovery of BW by identical twins after 5 years of overfeeding, 1042-1050
- Rectal proliferative indices, acarbose effects on, 1179-1187
- Red blood cells, *see* Erythrocyte(s)
- Reduced-fat diet, *see* Low-fat diet
- Reductase inhibitor, *see* Aldose reductase inhibitor(s)
- REE (resting energy expenditure), impact of low- versus high-nicotine cigarette smoking on, 923-926
- Regeneration of nerves, tolrestat effects, after crush injury in STZ-DM, 1189-1195
- Regional cerebral blood flow (rCBF), effects of acute hypoglycemia on, in IDDM with impaired hypoglycemia awareness, 974-980
- Regional free fatty acids (FFAs), kinetics of, contributing to postabsorptive FFA flux in men and women, 662-666
- Renal failure, VLDLs as poor substrates for milk LPL in uremia, 686-690
- Renal function, pancreas transplantation effects on, 857
- Renal hemodynamics, intrarenal glucagon action on, 383-388
- Renal insufficiency, NIDDM with and without, insulin effects on urinary excretion of phosphate in, 782-786
- Renal metabolism, intrarenal glucagon action on, 383-388
- Renal Na (sodium) handling, intrarenal glucagon action on, 383-388
- Renal plasma flow (RPF), intrarenal glucagon action on, 385
- Renal substrate balance, stress hormone effects on, in conscious subjects, 574-575
- Renal transplantation, protein oxidation in, 1319-1322
- Renal vascular resistance, intrarenal glucagon action on, 385
- Renin, PRA in hypertensive patients with LVH during ergometric exercise, 1328
- RER (respiratory exchange ratio), theophylline effects on, during exercise and, 1156
- Resistance exercise
effects of aerobic exercise and, on body composition and metabolism following diet-induced weight loss, 179-183
and GH administration in older men, effects of, on insulin sensitivity and secretion during IVGTT, 254-260
- Respiratory exchange ratio (RER), theophylline effects on, during exercise, 1156
- Resting energy expenditure (REE), impact of low- versus high-nicotine cigarette smoking on, 923-926
- Resting metabolic rate (RMR)
of morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
see also Resting metabolic rate in weight-reduced subjects
- Resting metabolic rate (RMR) in weight-reduced subjects
effects of aerobic exercise and resistance training on, 182
following high-fat meal, 176
- Retinoic acid (RA) receptor transcripts, and effects of ROH and RA on glucagon secretion in pancreatic islets and glucagon-secreting cell lines, 300-305
- Retinoic acid (RA) status, IDDM and insulinitis development and, 248-254
- Retinol (ROH; vitamin A_1), RA receptor transcripts and effects of RA and, on glucagon secretion in pancreatic islets and glucagon-secreting cell lines, 300-305

- Retinyl palmitate (RP), 17 β -estradiol effects on, in postmenopausal women, 829
- Reversal
- rapid, of neurovascular effects of STZ-DM with aminoguanidine, 1147-1152
 - of reduced Na⁺/K⁺ ATPase and MNCV due to L-fucose, 229-234
- Ribonucleic acid, *see* RNA
- Risk and risk factors
- insulin effects on beta cell function in subjects at high risk for IDDM, 873-875
 - metabolic, *see* Metabolic risk factors
 - see also* Cardiovascular risk factor(s) and specific risk factors
- RMR, *see* Resting metabolic rate
- RNA (ribonucleic acid)
- editing of hepatic apo B, in genetic obesity, 1056-1058
 - see also* mRNA
- ROH (retinol), RA receptor transcripts and effects of RA and, on glucagon secretion in pancreatic islets and glucagon-secreting cell lines, 300-305
- RP (retinyl palmitate), 17 β -estradiol effects on, in postmenopausal women, 829
- RPF (renal plasma flow), intrarenal glucagon action on, 385
- S, *see* Sucrose
- SA, *see* Specific activity
- Safflower oil (linoleic acid)
- effects of, on expression of insulin signal-transduction pathway intermediates gene, 1080-1088
 - effects of, on hyperglycemia and obesity, 1540, 1541
 - in STZ-DM, effects of sorbinil and ALC on, 905
- Saline, effects of, on GFR, 1349
- SAT, *see* Subcutaneous adipose tissue
- Saturated fatty acids (SFAs)
- effects of high levels of, in meat, dairy products, and tropical oils on serum Lps and LDL degradation by mononuclear cells in men, 550-558
 - exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 798, 801
 - in hydrogenated fat diet, 242
 - and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
 - plasma PL, relationship between hyperinsulinemia and, 223-228
- SCFAs (short-chain fatty acids), acarbose effects on, 1179-1187
- SCI (spinal-cord injury), women with, HPO and HPT axes in, 718-722
- SCL (skin conductance level), mental stress and, in adolescent boys with IRS, 614-621
- Sellae, empty, with impaired testosterone secretion, and defective hypothalamic-pituitary growth and gonadal axes in Bardet-Biedel syndrome children, 1230-1234
- Sepsis, *see* Infection
- Serine, MH 7777 effects on concentrations of, 851
- Serum albumin
- in glomerular proteinuria, 725
 - in IDDM, progression of microalbuminuria and, 1102
 - in β -thalassemia major, 653
 - and urinary excretion of T and E₂, 281
- Serum Ca (calcium), circadian relationships between circulating ANPs, serum phosphate and, in healthy subjects, 1021-1028
- Serum carnitine, pivalic acid-induced deficiency in, 1502
- Serum cholesterol (C)
- urapidil effects on, in hypertension, 1223
 - in uremia, 689
- Serum corticotropin (ACTH) in HIV-infected men, 741
- Serum cortisol
- in HIV-infected men, 741
 - in SCI women, 719
- Serum creatinine (Cr)
- in glomerular proteinuria, 725
 - of hypertensive subjects with LVH, 1327
 - in IDDM, *see* Serum creatinine in IDDM
 - in NIDDM, *see* Serum creatinine in NIDDM
- Serum creatinine (Cr) in IDDM
- in nonnephropathic IDDM, RBC membrane Na/lithium countertransport kinetics and, 1204
 - progression of microalbuminuria and, 1102
- Serum creatinine (Cr) in NIDDM
- and ACE and AGN gene polymorphism, 220
 - with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
- Serum dolichol, effects of anabolic androgenic steroid abuse on serum ubiquinone and, 844-847
- Serum estradiol (E₂) in SCI women, 719
- Serum ferritin in β -thalassemia major, 653
- Serum follicle-stimulating hormone (FSH) in SCI women, 719
- Serum free fatty acids (FFAs)
- in GH-deficient men, effects of GH therapy on, 365-366
 - in obesity, *see* Serum free-fatty acids in obesity
- Serum free fatty acids (FFAs) in obesity
- ACX potentiating GH response to GHRH by decreasing, in obese men, 594-597
 - CPIR in obese nondiabetic subjects and, 171
- Serum L-fucose, dietary L-fucose effects on, 232
- Serum glucose, L-NMMA effects on, 941-943
- Serum growth hormone (GH)
- in GH-deficient men, 363, 364, 371
 - in HIV-infected men, 741
 - in SCI women, 719
- Serum high-density lipoprotein-cholesterol (HDL-C)
- fasting, in NIDDM, with amino acid polymorphism in HSL, 864
 - in uremia, 689
- Serum insulin
- in adolescents with insulin resistance, 909, 911-912
 - fasting, in β -thalassemia major, 655
 - in STZ-DM, *see* Serum insulin in STZ-DM
- Serum insulin-like growth factor-I (IGF-I)
- effects of GH therapy for GH-deficient men on, 363-364, 371
 - effects of long-term therapy with IGF-I on levels of, 1264
- Serum insulin-like growth factor binding protein-3 (IGFBP-3), effects of GH therapy in GH-deficient men on, 363-364
- Serum insulin in STZ-DM
- immunoreactive, and effects of gonadectomy on development of hypertension, albuminuria, and STZ-DM, 159
 - troglitazone effects on, 1169
- Serum K (potassium), oral albuterol effects on, 714, 716
- Serum lathosterol-to-cholesterol ratio is not elevated in glomerular proteinuria and not associated with improved hyperlipidemia in response to antiproteinuria therapy, 723-730
- Serum lipids
- diet effects on glucose homeostasis and levels of, in exercise, 435-441
 - effects of palmitic and stearic acids on serum Lps, plasma CETP activity and, in young women, 143-149
 - GH effects on serum Lps and, increased peripheral conversion of T₄ to T₃ and, 1016-1020
 - oral albuterol effects on carbohydrate metabolism and, in men, 712-717

- Serum lipoprotein(s) (Lps)
 effects of GH therapy for GH-deficient men on, 370-377
 effects of palmitic and stearic acids on serum lipids, plasma CETP activity and, in young women, 143-149
 GH effects on serum lipids and, increased peripheral conversion of T₄ to T₃ and, 1016-1020
 relative effects of high SFA levels in meat, dairy products, and tropical oils on, and on degradation of LDLs by mononuclear cells in men, 550-558
 urinary excretion of T and E₂ in Chinese men, and concentrations of, 279-284
- Serum lipoprotein(a) [Lp(a)], long-term IGF-I therapy effects on, in Laron syndrome, 1263-1266
- Serum low-density lipoprotein-cholesterol (LDL-C)
 exercise effects on concentrations of serum TC and, related to apo E phenotype in boys and young adults, 797-803
 in uremia, 689
- Serum luteinizing hormone (LH)
 in HIV-infected men, 741
 in SCI women, 719
- Serum Mg (magnesium), oral albuterol effects on, 714, 716
- Serum β_2 (beta₂)-Microglobulin (β_2 M) in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
- Serum phosphate, circadian relationships between circulating ANPs, serum Ca and, in healthy subjects, 1021-1028
- Serum prolactin (PRL)
 in HIV-infected men, 741
 in SCI women, 719
- Serum sex hormone-binding globulin (SHBG)
 effects of GH therapy in GH-deficient men on, 363-364
 level of serum T and, increased by exercise in older men, 935-939
- Serum sialic acid in IDDM, progression of microalbuminuria and, 1102
- Serum testosterone (T)
 effects of GH therapy for GH-deficient men on, 363-364
 in HIV-infected men, 741
 level of serum SHBG and, increased by exercise in older men, 935-939
- Serum thyrotropin (TSH)
 effects of GH therapy of GH-deficient men on, 363-364
 in HIV-infected men, 741
 in SCI women, 718-722
- Serum thyroxine (T₄)
 effects of GH therapy for GH-deficient men on, 363-364
 in HIV-infected men, 741
 in SCI women, 719
- Serum total cholesterol (TC)
 exercise effects on concentrations of LDL-C and, related to apo E phenotype in boys and young adults, 797-803
 fasting, in NIDDM with amino acid polymorphism in HSL, 864
 in glomerular proteinuria, 726
 in nonnephropathic IDDM, RBC membrane Na/lithium countertransport kinetics and, 1204
- Serum triglycerides (TGs)
 fasting, *see* Fasting serum triglycerides
 in glomerular proteinuria, 726
 in NIDDM with amino acid polymorphism, 864
 urapidil effects on, in hypertension, 1223
- Serum triiodothyronine (T₃)
 effects of GH therapy of GH-deficient men on, 363-364
 in SCI women, 719
- Serum ubiquinone, effects of anabolic androgenic steroid abuse on serum dolichol and, 844-847
- Serum urate in pubertal lean and obese boys, 204
- Serum uric acid
 in hospitalized subjects, 1557-1561
 oral albuterol effects on, 714
- Serum very-low-density lipoprotein (VLDL), urapidil effects on, in hypertension, 1223
- Severe insulin resistance in leprechaunism due to two mutations of tyrosine kinase domain of insulin receptor gene, 1493-1500
- Severely hyperandrogenic hirsute women, long-acting GnRH in, 25-27
- Severity of CAD, HDL relation to metabolic parameters and, 1375-1382
- Sex
 of acromegalic subjects, *see* Sex of acromegalic subjects
 of cancer patients, response to radiation therapy and, 768
 of CHD subjects, 670
 effects of full-fat or reduced-fat diet on EE and substrate oxidation of non-obese subjects, 1005
 and EtOH effects on PRL release, 1331
 exercise and, *see* Sex, exercise and
 of FHLB subjects, 1297
 and glucose processing during FSIGT, 599
 of hypercholesterolemic thrombophilia patients, 968
 and hyperinsulinemia associated with VPCs, 1250-1252
 of hypertensive subjects, *see* Sex of hypertensive subjects
 of IDDM subjects, 269
 influence of adiposity, age and, on metabolically active component of FFM, 992-997
 insulin and, *see* Sex, insulin and
 of morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1012
 of multiple trauma subjects, 451
 of NIDDM subjects, *see* Sex of NIDDM subjects
 of non-obese subjects, effects of full- or reduced-fat diet on EE and substrate oxidation in, 1005
 of PWS subjects, 1515, 1516
 and relationship between hepatic and peripheral insulin resistance and PAI-1, 1244
 and relationship between plasma PL SFAs, 224
 of smokers, 1552-1554
 of β -thalassemia major subjects, 653
 and urinary excretion of pyridinium cross-links of collagen, 511
see also Female subjects; Male subjects
- Sex, exercise and
 and strenuous exercise effects on glycerol kinetics, 358
 varying effects of exercise on concentrations serum TC and LDL-C related to apo E phenotype in boys and young adults, 798
- Sex, insulin and
 and insulin effects on intracellular Ca concentrations, insulin resistance and, 1403, 1405
 and insulin effects on levels of circulating vitamin E, 999
- Sex of acromegalic subjects, 110
- Sex of acromegalic pituitary adenoma subjects, 207
- Sex hormone-binding globulin (SHBG)
 in hirsute women, *see* Sex hormone-binding globulin in hirsute women
 serum, *see* Serum sex hormone-binding globulin
 and urinary excretion of T and E₂, 282
- Sex hormone-binding globulin (SHBG) in hirsute women
 BMD and, 516
 GnRH effects on, in severely hirsute hyperandrogenic women on, 25
- Sex of hypertensive subjects
 with LVH, 1327
 urapidil effects on plasma Fn and, 1222, 1223

Sex of IDDM subjects

- apo, Lp, and LDL size and, 1269
- autonomic neuropathy and, 1066
- with hypoglycemia, 975
- with nonnephropathic IDDM, RBC membrane SLC kinetics and, 1204
- progression of microalbuminuria and, 1102, 1104
- with well-controlled IDDM, 1435

Sex of NIDDM subjects

- and ACE and AGN gene polymorphism, 220
- of adult-onset IDDM subjects, 1510
- apo, Lp, and LDL size and, 1269
- autonomic neuropathy and, 1066
- and effects of vanadyl sulfate on CHO and lipid metabolism, 1131
- and gliclazide effects on HGP suppression, 1197
- of NIDDM Mexican-Americans and non-Hispanic whites, 877-879
- normotriglyceridemic, 64
- oral glucose and CCK release in, 197
- with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783

SFAs, *see* Saturated fatty acidsSHBG, *see* Sex hormone-binding globulin

Short-chain fatty acids (SCFAs), acarbose effects on, 1179-1187

Short-term therapy with trandolapril, 536-537

Sialic acid, serum, in IDDM, progression of microalbuminuria and, 1102

Side effects

- of ACX, 344
- of octreotide, 214-215
- of oral albuterol, 713

Signal-transduction pathway intermediates, insulin, effects of beef tallow and safflower oil diets on expression of gene of, 1080-1088

Sitostanol in sitosterolemia, 675

Sitosterolemia, cholestyramine and lovastatin effects on plasma sterol levels in homozygous girl and her heterozygous father with, 673-679

Skeletal muscle

- in body composition of healthy Indian and Swedish men, 637-638
- insulin-resistant, effects of trandolapril alone or in combination with verapamil on glucose transport in, 535-541
- in MIDD, 528
- of normal and STZ-DM subjects, effects of exercise on mitochondrial function in, 810-816
- stress hormone infusion effects on protein synthesis in, in normal adult subjects, 1388-1394
- thermal injury effects on glucose utilization by, 1161-1167
- see also* Skeletal muscle glucose; Skeletal muscle glycogen; Skeletal muscle glycogen synthase

Skeletal muscle glucose

- dexamethasone-induced impaired transport of, not reversed by inhibition of FFA oxidation, 92-100
- during FSIGT, 601-602

Skeletal muscle glycogen

- effects of CHOs and dietary fat supplementation on, during prolonged exercise, 919-920
- during FSIGT, 602

Skeletal muscle glycogen synthase (GS) during FSIGT, 602

Skeleton

- in body composition of healthy Indian and Swedish men in relation to CV risk factors, 637, 638
- see also* entries beginning with term: Skeletal

Skin

- thermal injury effects on glucose utilization by, 1161-1167

see also entries beginning with terms: Cutaneous, Epidermal, Skin

Skin conductance level (SCL), mental stress and, in adolescent boys with IRS, 614-621

Skin glycation, hormonal replacement therapy effects on, in postmenopausal subjects, 1259, 1260

SLC, *see* Erythrocyte membrane sodium-lithium countertransport

Small intestine

- mucosa of, endotoxemia and sepsis effects on polyamine metabolism in, 28-33
- thermal injury effects on glucose utilization by, 1161-1167

Smoking

- by aging women, 44
- CAD and, 1377
- high- versus low-nicotine cigarette, impact of, on REE, 923-926
- by hypercholesterolemic patients, *see* Smoking by hypercholesterolemic subjects
- in IDDM, WHR and, 269
- lack of association between hyperinsulinemia and, 1551-1556
- in NIDDM, *see* Smoking by NIDDM subjects
- by premenopausal women, *see* Smoking by premenopausal women
- and relationship between psychosocial stress and IRS, 1535
- and urapidil effects on plasma F₁n in hypertensive subjects, 1222
- by young women on contraceptive steroids, 834
- Smoking by hypercholesterolemic subjects
- by FH patients, GH and, 1417
- and hematologic parameters in hypercholesterolemic thrombophilia, 967

Smoking by NIDDM subjects

- with macrovascular disease, 134
- and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877-879

Smoking by premenopausal women

- and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 329
- obese, with VAT and SAT, 352

SNS, *see* Sympathetic nervous systemSodium, *see* Monosodium glutamate; Na

Somatostatin

- cells producing, functional active receptors for IGF-I and IGF-II on, 759-766
- octreotide as analog of, effects of, on glucose metabolism and insulin sensitivity in IDDM, 211-217
- secretion of, due to A-4166, 184-189

Sorbitol, *see* Peripheral nerves in STZ-DM, sorbinil effects on

Sorbitol, relationship between concentrations of glutathione and, in erythrocytes of diabetic subjects, 611-613

Soybean oil, effects of, on hyperglycemia and obesity, 1540, 1541

Specific activity (SA)

- isotope dilution technique versus constant SA technique in estimation of insulin effects on HGP, 82-91
- moderate decline in, and HGP, 587-593

Spectral analysis of 24-hour pattern of HS in obesity with NIDDM, 1342-1347

Spectrometry, mass, with atmospheric pressure chemical ionization interface system, liquid chromatography-, *N*-acetylcystathionine and cyclic cystathionine sulfoxide in cystathioninuria identified with, 1312-1316Spectroscopy, ³¹P magnetic resonance, to assess effects of nutritional status and inflammatory state on liver of elderly subjects, 1059-1061

Spinal-cord injury (SCI), women with, HPO and HPT axes in, 718-722

- Spleen, CL316,243 effects on NE turnover in, SNS activity and, 788
- Splenocytes
 mononuclear, L-NMMA effects on NO generation and, with mld-STZ, 940-946
 reduced immune function and reduced metabolism of, in subjects implanted with MH 7777, 848-855
- Spontaneous hypertension, activity and phosphorylation of Na⁺/H⁺ exchanger in vascular myocytes in, glucose effects on, 114-119
- Spontaneous non-insulin-dependent diabetes mellitus (NIDDM), function of pancreatic alpha cells in partial pancreatectomy as model of, 1360-1367
- Starvation
 T₃ maximal binding capacity for T₃ receptor protein decreased by, 970-973
 in untreated NIDDM, effects of, on plasma glucose and insulin concentrations, 492-497
see also Fasting
- Stearate, Lp metabolism of, in normolipidemic men, 1109-1118
- Stearic acid, effects of palmitic acid and, on serum lipids, Lps, and plasma CETP activity in young women, 143-149
- Steroids
 anabolic androgenic, effects of abuse of, on serum ubiquinone and serum dolichol levels, 844-847
 contraceptive, effects of proinsulin and insulin on plasma PAI-1 and t-PA in young women on, 833-838
see also specific steroids
- Sterols
 plasma, cholestyramine and lovastatin effects on levels of, in sitosterolemic homozygous girl and her sitosterolemic heterozygous father, 673-679
see also specific sterols
- Strenuous exercise, effects of, on glycerol kinetics, 357-361
- Streptozotocin (STZ)
 L-NMMA effects on mononuclear splenocytes and NO generation with mld-, 940-946
see also Streptozotocin-induced diabetes mellitus
- Streptozotocin-induced diabetes mellitus (STZ-DM)
 ALC in, *see* Acetyl-L-carnitine in STZ-DM
 cardioprotective effects of troglitazone in, 1168-1173
 exercise effects on mitochondrial function of skeletal muscle of, 810-816
 hypertension and, *see* Hypertension, and STZ-DM
 rapid reversal of neurovascular effects of, with aminoguanidine, 1147-1152
 sorbinil in, *see* Peripheral nerves in STZ-DM, sorbinil effects on tolrestat effects on nerve regeneration in, after crush injury, 1189-1195
- Stress
 oxidative, and cICAM-1, HbA_{1c}, and MDA level in NIDDM, 498-450
 psychological, IRS and, 1533-1538
see also Insulin resistance syndrome, stress and
- Stress hormone (epinephrine, glucagon, norepinephrine, and cortisol)
 effects of, on protein synthesis in skeletal muscle, albumin, and lymphocytes in normal adult subjects, 1388-1394
 role of cortisol in metabolic response to, in conscious subjects, 571-578
- Stress test, effects of AVP/CRF test and, on HPA axis activity and its relationship to AN in premenopausal obese women with SAT and VAT, 351-356
- Structure of peripheral nerves, effects of ALC and sorbinil on chemistry, function and, in STZ-DM, 902-907
- STZ, *see* Streptozotocin
- Subcutaneous adipose tissue (SAT)
 HPA axis activity and its relationship to AN in premenopausal obese women with VAT and, effects of CRF/AVP and stress tests on, 351-356
 in identical twins overfed for 5 years, 1045
 in visceral obesity-insulin resistance-dyslipidemic syndrome, 885
- Submaximal exercise, and pivalic acid-induced carnitine deficiency, 1502
- Substrates
 concentrations of, and pentoxifylline and indomethacin effects on HGP in healthy subjects, 1459-1460
 effects of full-fat or reduced-fat diet on EE and oxidation of, in non-obese subjects, 1004-1010
 PP thermogenesis and utilization of, after different CHO ingestion, 1235-1242
 stress hormone effects on balance of, in conscious subjects, 574-576
 substrate kinetics of CHO ingestion and CHO loading during prolonged exercise, compared, 415-423
 theophylline effects on metabolism of, during exercise, 1153-1160
 VLDLs as poor, for milk LPL in uremia, 686-690
see also specific substrates
- Sucrase, intestinal, L-arabinose inhibiting, after sucrose ingestion, 1368-1374
- Sucrose (S)
 effects of long-term diet rich in, on endocrine pancreas in normal subjects, 1527-1532
 HFHS diet effects on malonyl coenzyme A in obese salt-sensitive subjects, 519-525
 ingestion of, L-arabinose inhibiting intestinal sucrase and suppressing glycemic response after, 1368-1374
- Sulfoxide, cyclic cystathionine, N-acetylcyclic cystathionine and, in cystathioninuria, LC/APCI-MS in identification of, 1312-1316
- Supplementation
 effects of CHOs and dietary fat, on CHO metabolism during prolonged exercise, 915-921
 sorbinil and *myo*-inositol, effects of, on turnover of peripheral nerve polyphosphoinositide in STZ-DM, 320-327
- Swedish adolescents, insulin resistance in, 908-914
- Swedish men, CT-determined body composition of healthy Indian and, in relation to CV risk factors, 634-644
- Sympathetic nervous system (SNS)
 activity of, and O₂ consumption in heart, hepatomesenteric bed, and brain of elderly and young men, 1487-1492
 CL316,243 effects on activity of, 787-791
- Synthase, *see* Fatty acid synthase; Glycogen synthase; Nitric oxide synthase
- T, *see* Testosterone
- T₃, *see* Triiodothyronine
- T₄, *see* Thyroxine
- TAG (triacylglycerol), hepatic, OFS effects on fructose impact on metabolism of, 1547-1550
- Taurine, MH 7777 effects on concentrations of, 851
- TBK, *see* Total body K
- TC, *see* Total cholesterol
- T-cell leukemia, cachexia induced by, 645-651
- Testosterone (T)
 DHEA effects on, in morbidly obese adolescents, 1613
 free, *see* Free testosterone
 GHBP regulation by, 1522
 in hirsute women, *see* Testosterone in hirsute women
 hormone replacement therapy effects on, in postmenopausal subjects, 1258, 1260

- Testosterone (T) (*Continued*)
impaired secretion of, in Bardet-Biedel syndrome children, 1230-1234
OA inhibiting cholesteryl esterase and cholesterol utilization for synthesis of, in Leydig cells, 293-299
plasma, protein effects on levels of, 1485
serum, *see* Serum testosterone
urinary excretion of E₂ and, by Chinese men, serum Lp concentrations and, 279-284
- Testosterone (T) in hirsute women
BMD and, 516
GnRH effects on, in severely hirsute hyperandrogenic women on, 25
- TG(s), *see* Triglycerides
- TGF- β (transforming growth factor- β), role of, in glucose effects on proteoglycan mRNA expression, 1141-1142
- β (beta)-Thalassemia major (TM), glucose intolerance in, related to insulin resistance and hepatic dysfunction, 652-657
- Theophylline, effects of, on substrate metabolism during exercise, 1153-1160
- Therapy
intensive, of adult-onset IDDM, insulin sensitivity and insulin reserve with, 1508-1513
see also specific therapies
- Thermal injury (burn), effects of, on glucose utilization by skin, wound, small intestine, and skeletal muscle, 1161-1167
- Thermogenesis
postprandial, substrate utilization and, after different CHO ingestion, 1235-1242
relationship between glucose metabolism and, with and without prior exercise in obese NIDDM women, 747-752
see also entries beginning with term: Energy
- Threonine, MH 7777 effects on concentrations of, 851
- Thrombophilia, hypercholesterolemic, 966-969
- Thromboplastin time, activated partial, in hypercholesterolemic thrombophilia, 967, 968
- ³H-Thymidine, IGF-I and IGF-II effects on incorporation of, into DNA of insulin-, glucagon-, and somatostatin-producing cells, 763
- Thyroid
effects of thyroid status on glucose cycling by hepatocytes, 101-108
HPT axis in SCI women, 718-722
see also Hyperthyroidism; Hypothyroidism; Triiodothyronine and entries beginning with element: Thy-
- Thyrotropin (TSH)
in Bardet-Biedel syndrome children, 1232, 1233
effects of T₃ on, in hyperthyroidism, 1030, 1031
ET-1 impact on basal and stimulated concentrations of, in men with and without nifedipine pretreatment, 658-661
in hyperthyroidism, 709
in SCI women, 718-722
serum, *see* Serum thyrotropin
- Thyrotropin-releasing hormone (TRH), plasma PRL level in men before and after stimulation with, following nifedipine and ET-1 treatment, 660
- Thyroxine (T₄)
free, in Bardet-Biedel syndrome children, 1232, 1233
in hyperthyroidism, *see* Thyroxine in hyperthyroidism
serum, *see* Serum thyroxine
- Thyroxine (T₄) in hyperthyroidism
effects of T₃ on, in hyperthyroidism, 1030, 1031
peripheral conversion of, to T₃, GH effects on serum lipids and Lps and, increased, 1016-1020
plasma, 709
- Tissue lipids in obesity, pioglitazone effects on, 521
- Tissue plasminogen activator (t-PA)
effects of proinsulin and insulin on, in young women on contraceptive steroids, 833-838
fibrinolytic potential and, 1429
- Tissue uptake of insulin, glyburide effects on, in conscious subjects, 579-586
- TKBs (total ketone bodies), effects of plasma E and NE concentrations on, 1217, 1218
- β (beta)-TM (thalassemia major), glucose intolerance in, related to insulin resistance and hepatic dysfunction, 652-657
- TNF, *see* Tumor necrosis factor; Tumor necrosis factor- α
- Tobacco, *see* Smoking
- α (alpha)-Tocopherol, *see* Vitamin E
- Tolbutamide, effects of, on somatostatin and insulin secretion, 185
- Tolrestat, effects of, on nerve regeneration in STZ-DM after crush injury, 1189-1195
- Total body K (TBK)
and body composition of healthy Indian and Swedish men, 637
and influence of age, sex, and adiposity on metabolically active component of FFM, 993
- Total body water of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
- Total cholesterol (TC)
AAS abuse effects on, 845
and abdominal AT distribution, metabolic risk factors and, 1121
in adolescents with insulin resistance, 909; *see also* Total cholesterol in obese adolescents
in CHD, *see* Total cholesterol in CHD
in FH, GH and, 1417, 1418
in FHLB, 1297
in FHTG and FDL, 1308
fibrinolytic potential and, 1429
GH therapy effects on, *see* Total cholesterol, GH therapy effects on
and gonadectomy effects on development of hypertension, albuminuria, and STZ-DM, 159
in HF diet-induced hyperglycemia and obesity, 1541
in high SFA diet, 553
in hospitalized subjects, 1558, 1559
hydrogenated fat diet effects on, 244
in IDDM, *see* Total cholesterol in IDDM
and insulin effects on levels of circulating vitamin E, 999, 1000
insulin resistance and, and insulin effects on intracellular Ca concentrations, 1405
in NIDDM, *see* Total cholesterol in NIDDM
of normolipidemic men, myristate, palmitate, and stearate Lp metabolism and, 1109
OFS effects on, 1548
oral albuterol effects on, 714
palmitic and stearic acid effects on, 146
plasma, exercise effects on, 477
serum, *see* Serum total cholesterol
in STZ-DM, troglitazone effects on, 1169
- Total cholesterol (TC), GH therapy effects on, 1017
of GH therapy of GH-deficient men on, 372
- Total cholesterol (TC) in CHD
effects of high- versus low-glycemic CHOs on, 671
as lipid risk marker for CHD in non-obese premenopausal women, 330
- Total cholesterol (TC) in IDDM
intrapertoneal insulin effects on, 432
Lp, apo, and LDL size and, 1268, 1269
- Total cholesterol (TC) in NIDDM
and ACE and AGN gene polymorphism, 220

- Total cholesterol (TC) in NIDDM (*Continued*)
 cardiovascular risk factors and RBC membrane SLC and, 962, 963
 Lp, apo, and LDL size and, 1268, 1269
 and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
- Total cholesterol (TC) in obese adolescents, 235
 in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
- Total gluconeogenesis (GNG) from glycerol with [2-¹³]glycerol, measurement of, 897-901
- Total glycerides in hyperlipidemia, 892
- Total hepatic nuclear protein, starvation effects on, 971
- Total ketone(s), relationship between plasma insulin, BP, and levels of, in normal, DM, and DKA subjects, 693
- Total ketone bodies (TKBs), effects of plasma E and NE concentrations on, 1217, 1218
- Total parenteral nutrition (TPN)
 effects of GH therapy of hyperglycemia in multiple trauma subjects on, 450-456
 with ω -fish oil, effects of, on leukocyte membrane FA composition and leukotriene-synthesizing capacity in postoperative trauma, 1208-1213
- Total phospholipids (PLs), intraperitoneal insulin effects on, in IDDM, 432
- Total proteins in IDDM and NIDDM, blood cell membrane phospholipid composition and, 59
- Total triglycerides (TGs)
 in FHTG and FDL, 1308
 in NIDDM, cardiovascular risk factors and RBC membrane SLC and, 963
 palmitic and stearic acid effects on, 146
 t-PA, *see* Tissue plasminogen activator
 TPN, *see* Total parenteral nutrition
- Tracer kinetics, muscle protein synthesis and degradation in anesthesia measured with, 1279-1283
- Training, *see* Exercise
- Trandolapril, effects of, alone or in combination with verapamil, on glucose transport in insulin-resistant skeletal muscle, 535-541
- Transaminase, aspartate, in β -thalassemia major, 653
- Transforming growth factor- β (TGF- β), role of, in glucose effects on proteoglycan mRNA expression, 1141-1142
- Transpeptidase, γ -glutamyl, in FHTG and FDL, omega-FA and fenofibrate effects on, 1306
- Transplantation, 848-861
 MH 7777, reduced immune function and reduced splenocyte metabolism in recipients of, 848-855
 pancreas, effects of, on plasma Lp distribution and composition, 856-861
 renal, protein oxidation in, 1319-1322
- Transposition, portal-caval, hyperinsulinemia and insulin resistance with, 120-125
- Trauma and injury
 multiple, effects of GH therapy on hyperglycemia in subjects with, on TPN, 450-456
 nerve crush injury, tolrestat effects on nerve regeneration in STZ-DM after, 1189-1195
 postoperative, effects of parenteral fish oil on leukotriene-synthesizing capacity and leukocyte membrane FAs in, 1208-1213
 thermal, effects of, on glucose utilization by skin, wound, small intestine, and skeletal muscle, 1161-1167
 women with spinal cord, HPO and HPT axes in, 718-722
- TRH (thyrotropin-releasing hormone), plasma PRL level in men before and after stimulation with, following nifedipine and ET-1 treatment, 660
- Triacylglycerol (TAG), hepatic, OFS effects on fructose impact on metabolism of, 1547-1550
- Triglycerides (TGs)
 and abdominal AT distribution, metabolic risk factors and, 1121
 in adipocytes, Mg deficiency effects on glucose incorporation into, 840
 in adolescents with insulin resistance, 909-911
 in Bardet-Biedel syndrome children, 1231, 1233
 in CHD, *see* Triglycerides in CHD
 as CV risk factor in healthy Indian and Swedish men, 640
 17 β -estradiol effects on, in postmenopausal women, 828
 exercise and, *see* Triglycerides, exercise and
 fibrinolytic potential and, 1429
 GH therapy effects and, *see* Triglycerides, GH therapy effects on
 in HF diet-induced hyperglycemia and obesity, 1541
 in high SFA diet, 553
 in hospitalized subjects, 1558-1560
 in hypercholesterolemia, *see* Triglycerides in hypercholesterolemia
 in IDDM, *see* Triglycerides in IDDM
 insulin and, *see* Triglycerides, insulin and
 intramuscular, and muscle insulin sensitivity in nondiabetic subjects, 947-950
 in IRS, 1535, 1536
 low-fat diet effects on, in sitosterolemia, 674
 medium-chain, *see* Medium-chain triglycerides
 in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
 nandrolone decanoate effects on concentration of, 465
 in NIDDM, *see* Triglycerides in NIDDM
 in normolipidemic men, 1109, 1110, 1113-1114
 in obesity, *see* Triglycerides in obesity
 oral albuterol effects on, 714
 palmitic and stearic acid effects on, 146
 pancreatic islet, FA effects on glucose-regulated beta-cell function and, 981-986
 plasma, *see* Plasma triglycerides
 RBC membrane phospholipid composition and, 59
 serum, *see* Serum triglycerides
 in STZ-DM, troglitazone effects on, 1169
 total, *see* Total triglycerides
 in uremia, 688, 689
 and urinary excretion of E₂ and T, 281, 282
 voglibose effects on, in nondiabetic hyperinsulinemia, 734
see also Hypertriglyceridemia
- Triglycerides (TGs), exercise and
 and diet effects on glucose homeostasis and serum lipid levels, 436
 and exercise effects on concentrations of serum TC and LDL-C related to apo E phenotype in boys and young adults, 798
- Triglycerides (TGs), GH therapy effects on
 in FH, 1417, 1418
 in GH-deficient men, 372
 peripheral conversion of T₄ to T₃ and, 1017
- Triglycerides (TGs), insulin and
 and insulin effects on intracellular Ca concentrations, insulin resistance and, 1405
 and insulin effects on levels of circulating vitamin E, 999, 1000
- Triglycerides (TGs) in CHD
 effects of high- versus low-glycemic CHOs on, 671
 and lipid and CHO metabolic risk markers for CHD in non-obese premenopausal women, 330

- Triglycerides (TGs) in hypercholesterolemia
in FH, 1417, 1418
with thrombophilia, 967
- Triglycerides (TGs) in IDDM
apo, Lp, and LDL size and, 1268, 1269
progression of microalbuminuria and, 1103, 1104
- Triglycerides (TGs) in NIDDM
and ACE and AGN gene polymorphism, 220
cardiovascular risk factors and RBC membrane SLC and, 962
Lp, apo, and LDL size and, 1268, 1269
with macrovascular disease, 134
in normotriglyceridemic NIDDM, 64, 67
plasma, role of AT loss in exercise-induced improvement in, 1384
and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
serum, with amino acid polymorphism in HSL, 864
- Triglycerides (TGs) in obesity
in obese adolescents, 235
in obese 10-year-old girls, 471, 472
in visceral obesity-insulin resistance-dyslipidemic syndrome, 885, 886
- Triiodothyronine (T_3)
maximal binding capacity of, for T_3 receptor protein, starvation effects on, 970-973
serum, *see* Serum triiodothyronine
see also Triiodothyronine in hyperthyroidism; Triiodothyronine receptor protein
- Triiodothyronine (T_3) in hyperthyroidism
effects of T_3 on plasma glucagon, 1029-1033
free, 709
peripheral conversion of T_4 to, GH effects on serum lipids and Lps and increased, 1016-1020
- Triiodothyronine (T_3) receptor protein, T_3 maximal binding capacity for, decreased by starvation, 970-973
- Triphosphatase, adenosine, *see* Na^+/K^+ ATPase
- Triphosphate, adenosine, *see* ATP
- Triptorelin (D-Trp-6-luteinizing hormone-releasing hormone) for severely hirsute hyperandrogenic women, 25-27
- Troglitazone, cardioprotective effects of, in STZ-DM, 1168-1173
- Tropical oils, relative effects of high SFA levels in meat, dairy products and, on serum Lps and degradation of LDLs by mononuclear cells in men, 550-558
- Tryptophan, MH 7777 effects on concentrations of, 851
- TSH, *see* Thyrotropin
- Tubular cells, proximal, glucose loading-induced apoptosis of, 1348-1353
- Tumor necrosis factor (TNF), protein and, as determinants of plasma IGF-1 and albumin concentrations and their hepatic mRNAs in malnourished subjects, 1273-1278
- Tumor necrosis factor- α (TNF- α), effects of, on basal and insulin-stimulated glucose transport in muscle and fat cells, 1089-1094
- 24-hour pattern of HS in obesity with NIDDM, 1342-1347
- Twins
identical, body weight recovery by, after 5 years of overfeeding, 1042-1050
nonnephropathic IDDM, erythrocyte membrane Na/Li countertransport kinetics in, 1203-1207
- Type I diabetes mellitus, *see* Insulin-dependent diabetes mellitus
- Type II diabetes mellitus, *see* Non-insulin-dependent diabetes mellitus
- Tyrosine
brain, IV γ -glutamyl tyrosine effects on catecholamine concentrations and, in normal subjects, 126-132
MH 7777 effects on concentrations of, 851
- Tyrosine kinase
IGF-I-stimulated activity of, 1477-1479
severe resistance to insulin and IGF-I due to two mutations of tyrosine kinase domain of insulin receptor gene in leprechaunism, 1493-1500
- Ubiquinone, serum, effects of anabolic androgenic steroid abuse on serum dolichol and, 844-847
- UMR106 osteoblastic cells, effects of vitamin B_{12} on alkaline phosphatase activity in, and on proliferation of, 1443-1446
- Untreated non-insulin-dependent diabetes mellitus (NIDDM), effects of starvation on plasma glucose and insulin concentrations in, 492-497
- Urapidil, effects of, on plasma Fn in essential hypertension, 1221-1229
- Urate
changes in, in lean and obese boys during puberty, 203-210
in hospitalized subjects, 1558
- Urea in Bardet-Biedel syndrome children, 1231
- Urea nitrogen
in hospitalized subjects, 1558-1560
see also Urea nitrogen in NIDDM
- Urea nitrogen in NIDDM
BUN in NIDDM with and without renal insufficiency, insulin effects on urinary phosphate excretion and, 783
urinary excretion of, in starved untreated NIDDM subjects, 494
- Uremia, VLDLs in, as poor substrates for milk LPL, 686-690
- Uric acid
serum, *see* Serum uric acid
urinary excretion of, in starved untreated NIDDM subjects, 493
see also Purine bases
- Urinary excretion
albumin, *see* Albuminuria; Microalbuminuria; Urinary excretion, albumin, in IDDM; Urinary excretion, albumin, in NIDDM
of L-arabinose and D-xylose, 1371
Cl, phosphate, and cAMP, intrarenal glucagon action on, 385
creatinine, *see* Urinary excretion, creatinine
DHEAS, effects of moderate protein increase on insulin secretion and, 1483-1486
 E_2 and T, by Chinese men, serum lipoprotein concentrations and, 279-284
of ethanolamine plasmalogens in nephrotic syndrome, 824
GH, and GH therapy for GH-deficient men, 363
 γ -glutamyl tyrosine, 131
K, *see* Urinary excretion, K
Na, *see* Urinary excretion, Na
in NIDDM, *see* Urinary excretion in NIDDM
orotic acid, effects of N-carbamyl glutamate on, in familial leucine-sensitive hypoglycemia, 959
of purine bases induced by xylitol, glucagon effects on, 1354-1359
of pyridinium cross-links of collagen in infancy, 510-514
urate, in pubertal lean and obese boys, 204
see also Aciduria
- Urinary excretion, albumin, in IDDM
in adult-onset IDDM, intensive therapy and, 1512
in nonnephropathic IDDM, RBC membrane Na/Li countertransport kinetics and, 1204
- Urinary excretion, albumin, in NIDDM
cardiovascular risk factors and RBC membrane SLC and, 962, 963
lack of relationship between insulin resistance and, 1062-1064
- Urinary excretion, creatinine, 281
in starved untreated NIDDM subjects, 494

- Urinary excretion, K
intrarenal glucagon action on, 385
in starved untreated NIDDM subjects, 494
- Urinary excretion, Na
intrarenal glucagon action on, 385
in starved untreated NIDDM subjects, 494
- Urinary excretion in IDDM
albumin, *see* Urinary excretion, albumin, in IDDM
C-peptide, in subjects at high risk for IDDM, 873-875
- Urinary excretion in NIDDM
with and without renal insufficiency, phosphate, insulin and intrarenal effects on, 782-786
urea nitrogen excretion in starved untreated NIDDM subjects, 494
see also Urinary excretion, albumin, in NIDDM
- Valine, MH 7777 effects on concentrations of, 851
- Vanadyl sulfate (VS), effects of, on CHO and lipid metabolism in NIDDM, 1130-1136
- Vascular endothelial cells, LPC stimulating expression and production of MCP-1 mRNA in, 559-564
- Vascular myocytes, activity and phosphorylation of Na^+/H^+ exchanger in, in spontaneous hypertension, glucose effects on, 114-119
- Vascular reactivity in metformin-treated fructose-hypertensive subjects, 1053-1055
- Vascular resistance, renal, intrarenal glucagon action on, 385
- Vascular smooth muscle cells (VSMCs), adhesive and proliferative properties of, impaired by nonenzymatic glycation of Fn, 285-292
- Vasopressin
effects of CRF/AVP and stress tests on HPA activity and its relationship to AN in premenopausal obese women with VAT and SAT, 351-356
role of, in regulation of gluconeogenesis, 392-395
- VAT, *see* Visceral adipose tissue
- $\dot{V}\text{CO}_2$ in multiple trauma, 454
- Ventricular hypertrophy, left, hypertension with, BNP during ergometric exercise by patients with, 1326-1329
- Ventricular premature complexes (VPCs), hyperinsulinemia associated with, 1248-1253
- Verapamil, effects of trandolapril alone or in combination with, on glucose transport in insulin-resistant skeletal muscle, 535-541
- Very-low-density lipoprotein(s) (VLDLs)
effects of low-fat diet on, in sitosterolemia, 674
in FHLB, 1302
in IDDM and NIDDM, apo, Lp, and LDL size and, 1268, 1269
of normolipidemic men, myristate, palmitate, and stearate metabolism and, 1109
peroxidation of, antioxidant effects of 4-hydroxystroene and 17α -dihydroequilin on, 412, 413
serum, urapidil effects on, in hypertension, 1223
in uremia, as poor substrates for milk LPL, 686-690
see also Very-low-density lipoprotein-cholesterol
- Very-low-density lipoprotein-cholesterol (VLDL-C)
in CAD, 1379-1380
effects of GH therapy for GH-deficient men on, 372
in FHTG and FDL, 1308
in glomerular proteinuria, 726
hydrogenated fat diet effects on, 244
in hyperlipidemia, 892
in obesity, *see* Very-low-density lipoprotein-cholesterol in obesity
palmitic and stearic acid effects on, 146
- Very-low-density lipoprotein-cholesterol (VLDL-C) (*Continued*)
pancreas transplantation effects on, 858
and relationship of plasma TGs, HDL-C, and apo B to postheparin LPL activity, 263
urapidil effects on, in hypertension, 1223
- Very-low-density lipoprotein-cholesterol (VLDL-C) in obesity
in morbidly obese adolescents, effects of insulin resistance, lipids, and body weight on DHEA in, 1013
in obese adolescents, 235
in visceral obesity-insulin resistance-dyslipidemic syndrome, 885
- Vessel dilators (VSDs), circadian relationships between serum Ca, serum phosphate, and circulating, 1021-1028
- Visceral adipose tissue (VAT)
HPA axis activity and its relationship to AN in premenopausal obese women with SAT and, effects of CRF/AVP and stress tests on, 351-356
in identical twins after 5 years of overfeeding, 1045
- Visceral obesity
familial level of, 378-382
plasma HDL-C as correlate of visceral obesity-insulin resistance-dyslipidemic syndrome in men, 882-888
- Visceral organs
volume of, and body composition of healthy Indian and Swedish men in relationship to CV risk factors, 637, 638
see also specific visceral organs
- Vitamin A₁ (retinol), RA receptor transcripts and effects of RA and, on glucagon secretion in pancreatic islets and glucagon-secreting cell lines, 300-305
- Vitamin B₁₂
effects of, on alkaline phosphatase activity in, and proliferation of bone marrow stromal osteoprogenitors and UMR106 osteoblastic cells, 1443-1446
in NIDDM with macrovascular disease, 134
- Vitamin E (α -tocopherol)
circulating, insulin effects on levels of, 998-1003
plasma, hydrogenated fat diet effects on, 245
and plasma oxidizability in NIDDM Mexican-Americans and non-Hispanic whites, 877
- VLDL(s), *see* Very-low-density lipoprotein(s)
- VLDL-C, *see* Very-low-density lipoprotein-cholesterol
- $\dot{V}\text{O}_2$
exercise and, *see* $\dot{V}\text{O}_2$, exercise and
T-cell leukemia effects on, 647-648
theophylline effects on, during exercise and, 1156
- $\dot{V}\text{O}_{2\text{max}}$, exercise and
and endogenous opioid response to exercise in IDDM, 139
and pivalic acid-induced carnitine deficiency, 1504
see also $\dot{V}\text{O}_2$, prolonged exercise and
- $\dot{V}\text{O}_2$, prolonged exercise and
effects of CHOs with MCTs and dietary fat supplementation on $\dot{V}\text{O}_2$ during prolonged exercise, 916
and substrate kinetics during prolonged exercise, 419
- $\dot{V}\text{O}_{2\text{max}}$
and fibrinolytic potential, 1429
in NIDDM, 1384
see also $\dot{V}\text{O}_{2\text{max}}$, exercise and
- $\dot{V}\text{O}_{2\text{max}}$, exercise and
and pivalic acid-induced carnitine deficiency, 1501, 1502, 1504
and relationship between glucose metabolism and thermogenesis with and without prior exercise in obese NIDDM women, 748
and strenuous exercise effects on glycerol kinetics, 358
see also $\dot{V}\text{O}_{2\text{max}}$, prolonged exercise

- $\dot{V}O_{2\max}$, prolonged exercise
effects of CHO with MCTs and dietary fat supplementation on
 $\dot{V}O_2$ during prolonged exercise, 916
and substrate kinetics during prolonged exercise, 418
- Voglibose, effects of, on dyslipidemia and insulin sensitivity in
nondiabetic hyperinsulinemia, 731-737
- VPCs (ventricular premature complexes), hyperinsulinemia associ-
ated with, 1248-1253
- VS (vanadyl sulfate), effects of, on CHO and lipid metabolism in
NIDDM, 1130-1136
- VSDLs (vessel dilators), circadian relationships between serum
Ca, serum phosphate, and circulating, 1021-1028
- VSMCs (vascular smooth muscle cells), adhesive and proliferative
properties of, impaired by nonenzymatic glycation of Fn, 285-292
- Waist-to-hip ratio (WHR)
and abdominal AT distribution, metabolic risk factors and, 1120,
1121
of adolescents with insulin resistance, 909, 910
of CHD subjects, 670
and diet-induced weight loss, *see* Waist-to-hip ratio, and diet-
induced weight loss
of healthy Indian and Swedish men, 637
in hypercholesterolemic thrombophilia, 967
and hyperinsulinemia associated with VPCs, 1250-1252
of hypertensive subjects, urapidil effects on plasma Fn and, 1222
of identical twins after 5 years of overfeeding, 1045
of IGT subjects, 504
and intramuscular TG content, 949
of IRS subjects, 1535, 1536
in lean subjects, interstitial insulin and, 952
of nondiabetic Creole, Indian, and Chinese Mauritians, and
relationship between weight gain and insulin resistance,
629, 631, 632
of normolipidemic men, myristate, palmitate, and stearate Lp
metabolism and, 1109
in obesity, *see* Waist-to-hip ratio in obesity
and plasma oxidizability in NIDDM Mexican-Americans and
non-Hispanic whites, 877, 879
of postmenopausal women, 828
psychosocial factors and, in IDDM subjects, 268-272
and relationship between hepatic and peripheral insulin resis-
tance and PAI-1, 1244
and relationship of plasma TGs, HDL-C, and apo B to posthepa-
rin LPL activity, 263
of smokers, 1552
of β -thalassemia major subjects, 653
and urinary excretion of T and E₂, 281
of young women on contraceptive steroids, 834
- Waist-to-hip ratio (WHR), and diet-induced weight loss, 176
and resistance and aerobic exercise effects on WHR, 181
- Waist-to-hip ratio (WHR) in obesity
interstitial insulin and, 952
in premenopausal obese women with VAT and SAT, 352
in visceral obesity-insulin resistance-dyslipidemic syndrome, 885
- Water
deuterated, in plasma C and FA synthesis measurement, number
of incorporated deuterium atoms determined with, 817-821
total body, of normolipidemic men, myristate, palmitate, and
stearate Lp metabolism and, 1109
- Weight, *see* Body weight; Organ weight; Weight gain; Weight loss,
diet-induced
- Weight gain
L-fucose effects on, 231
with long-term sucrose-rich diet, 1528
relationship of insulin resistance to, in nondiabetic Creole,
Indian, and Chinese Mauritians, 627-633
- Weight loss
with IDDM, therapy and, 1510
see also Weight loss, diet-induced
- Weight loss, diet-induced, 174-183
decreased PP dietary fat oxidation following high-fat meal after,
174-178
resistance and aerobic exercise effects on body composition and
metabolism following, 179-183
- WHR, *see* Waist-to-hip ratio
- Women
aging, four-compartment model of body composition in, 43-48
exercising, *see* Women, exercising
with PCOS, hormonal parameters in, 72-75
SCI, HPO and HPT axes in, 718-722
see also Hirsute women; Menstrual history; Non-hirsute women;
Non-obese women; Pregnancy; Women, obese; Young
women
- Women, exercising, 747-758
glucose and lactate kinetics during short exercise by pregnant
women, 753-758
obese NIDDM, relationship between glucose metabolism and
thermogenesis with and without prior exercise, 747-752
regional FFA kinetics contributing to postabsorptive FFA flux
in, 662-666
see also Exercise
- Women, obese
ACX effects on GH response to GHRH alone or combined with
arginine in, 342-346
hirsute, hormonal parameters in, 72-75
with IGT, dysfunctional pancreatic islets in, 502-510
with NIDDM, relationship between glucose metabolism and
thermogenesis with and without prior exercise in, 747-752
nondiabetic, CIPR in, 168-173
premenopausal, with VAT and SAT HPA axis activity and its
relationship to AN in, effects of CRF/AVP and stress tests
on, 351-356
see also Obesity
- Wound, thermal injury effects on glucose utilization by, 1161-1167
- Xylitol, glucagon effects on increase in plasma and urinary excre-
tion of purine bases induced by, 1354-1359
- D-Xylose, effects of, on blood glucose after sucrose ingestion,
1370-1371
- Young adults
apo E phenotype in, varying effects of exercise on serum TC and
LDL-C concentrations related to, 797-803
see also Young men; Young women
- Young men, O₂ consumption in heart, hepatomesenteric bed, and
brain of, sympathetic nervous activity with, 1487-1492
- Young women
on contraceptive steroids, effects of proinsulin and insulin on
plasma PAI-1 and t-PA in, 833-838
effects of palmitic and stearic acids on serum lipids, Lps, and
plasma CETP in, 143-149
hirsute, menstrual history of, and current bone mineral density,
515-518